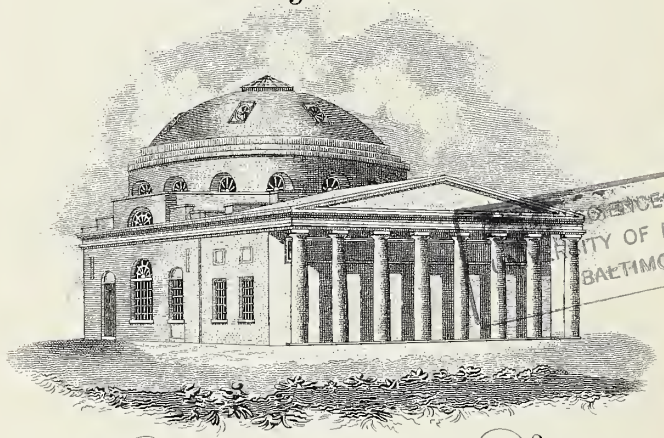
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PRESENT STATUS OF SURGICAL TREATMENT OF DUODENAL ULCER*

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Any discussion of surgical treatment of duodenal ulcer in modern times immediately brings to the fore the possibility of resection of the vagus nerve supply to the stomach. Dragstedt[1] and his coworkers have now followed a large series of patients for a long enough time to draw certain definite conclusions and they feel that their hypothetical viewpoint is well justified. As is the case with many new, or at least reintroduced, procedures, perhaps uncritical use of vagotomy by scattered investigators who may or may not be completely qualified may cast some air of pessimism on the results, which tends to cloud the picture. It has been said that vagotomy for duodenal ulcer has reached its crossroads. In the relatively near future, it should be definitely decided whether the operation will become recognized as the best of all possible procedures or will be relegated to treatment of only a small group of patients. In the Mayo Clinic such excellent results have been obtained by time-honored principles of surgical management that a majority of the surgeons prefer to treat complicated duodenal ulcers with means that have proved to be of lasting value. At the same time, close watch is being kept on results reported from other clinics in cases in which vagotomy has been performed and a modified series of vagotomies is being analyzed progressively. It would seem, therefore, to be of the most practical value to consider first those measures which are known to be sound and to finish the discussion with a short appraisal of those factors which must be considered in vagotomy.

PHYSIOLOGIC CONSIDERATIONS

Before going into even a brief discussion of vagotomy, therefore, it seems appropriate to review quickly what has been learned concerning other procedures. The causation of duodenal ulcer for practical purposes appears quite definitely to be largely dependent on the hypersecretion of an excessively acid gastric juice[2]. One difficulty in the treatment of the disease has been that therapy, whether medical or surgical, has concerned itself with attempting to counteract this hypersecretion. Thus far nothing has been developed to eliminate the original factor which produces this derangement; therefore, medical treatment has been directed toward neutralizing or at least diluting the secretion and surgical treatment originally did exactly the same.

More recently, surgical treatment has approached the problem in a more fundamental way by at least attempting to remove the source of the difficulty. It was early recognized that a good deal of protection to the duodenal mucosa came by way of the bile and pancreatic juices. Several different operations have been concerned with the attempt to take full cognizance of this fact and to attempt to maintain a regurgitation of this alkaline fluid over the vulnerable duodenal mucosa. More recently, greater attention has been paid to the neurogenic factor. It has been known for some time that the emotionally unstable, constantly agitated individual is much more likely to get into difficulty than the more stable, less excitable person. There appears to be a direct neurogenic effect on the gastric secretion and the secretory cells within the gastric mucosa.

An excellent means of laboratory reproduction of this situation was afforded some years ago in Wangensteen's laboratory. It so happened that Code[3] had been greatly interested in chronic histamine poisoning. In order to maintain a prolonged stimulus from histamine, he devised a histamine and beeswax mixture which he implanted in the muscles of laboratory animals. This mixture then slowly

*Read at the meeting of the Kansas Medical Society, Topeka, Kansas, May 15, 1947.

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liberated a steady dose of histamine. It was discovered that typical duodenal ulcers developed in these animals in a variable period. Not all of these ulcers perforated but in at least 98 per cent of the animals the ulcers were of such severity that there could be no question what the lesion was. This result is more interesting in view of the fact that Ivy and his co-workers had previously injected laboratory animals for as long a time as 60 days, employing an aqueous solution of histamine and giving an injection every two hours. No peptic ulcers were found in their animals. In Wangensteen's laboratory, this by-product of Code's experiment was immediately put to use to study means of protecting laboratory animals from the development of these ulcers. Wangensteen had long felt that the acid factor was by far the most important one and he now had material for a critical assay of the situation.

EXPERIMENTAL OBSERVATIONS

It was my privilege to spend some time in Wangensteen's laboratory and, while I was there, we performed all of the commoner gastric operations on various series of dogs. Following a recovery period, the animals were injected daily with a standard dose of histamine and beeswax mixture. It was found that all the controls presented perforated ulcers at the time of necropsy. In all of those animals which had been protected by resection of at least 75 per cent of the stomach, ulceration failed to develop. In 100 per cent of the gastro-enterostomized animals, an anastomotic ulcer was observed. In various other procedures, the incidence of ulcers was so high as almost to condemn any operation other than a wide resection. Hunt[4] had just written an article favoring 50 per cent resection for duodenal ulcers, stating that this would be adequate for most patients who had duodenal ulcer. Immediately, we submitted a series of dogs to 50 per cent resection and found that in some of these animals jejunal ulceration could be made to develop but the results were nowhere as consistent as with gastro-enterostomy and other types of procedures.

As a sidelight on this experiment, other stimulants for gastric secretion were imbedded in beeswax and injected into laboratory animals. It was found[5] that caffeine would produce ulceration in approximately 40 per cent of the subjects but the results were not consistent. Roth and Ivy[6] later took up this branch of the problem and corroborated our observations. In their opinion the ulceration was once again due to the excessive secretion of a very high acid gastric juice.

Gastro-enterostomy had almost been condemned in Wangensteen's clinic and, following this further laboratory evidence, he felt that the operation could now be discarded. Wangensteen and Lannin[7], in applying the evidence to a large series of patients and analyzing the operative results in these cases, admitted that the criticism they had directed toward gastro-enterostomy and toward other investigators' series might some day be directed to their own gastric resection series. It was found that an interval of 15 years or more after gastro-enterostomy had elapsed in many cases before a gastrojejunal ulcer developed. It was admitted that only four or five years had elapsed since a large series of the high gastric resections had been performed and it was just possible that after 15 or 20 years there might be some further difficulty. I believe, however, that all observers were convinced that the problem was being attacked in a vigorous manner.

It would be well at this time to mention in passing the work which is progressing in several laboratories in the attempt to suppress gastric secretion before it can produce duodenal ulceration. Ivy and his colleagues have discovered a substance present in the intestinal tract called "enterogastrone" and another substance in the urine called "urogastrone." It is felt that these are represented in the third phase of gastric secretion, commonly known as the intestinal phase. This is the most prolonged of the three phases and it has been stated that it may last from three to nine hours. The clinical reports on this medical treatment of duodenal ulcer are meager at present because this factor is still in the experimental stage. It is interesting to note the close correlation between this work and the interruption of the vagus nerve supply, as Dragstedt has pointed repeatedly to the fact that during the night the secretion of gastric juice by normal human beings is ordinarily small, whereas the nocturnal gastric secretion of patients suffering from duodenal ulcer is much more voluminous and more acid.

INDICATIONS FOR SURGICAL TREATMENT

The indications for surgical treatment of duodenal ulcer are now clear-cut. During the past 15 years the most gratifying progress has been made in the proper selection of patients for surgical treatment. The patients now fall into definite groups and can be tabulated as to primary and secondary factors to be considered as illustrated in Table 1.

Of the primary factors perhaps the most important is hemorrhage. This may present itself as an acute episode of massive hemorrhage or as a history of recurrent, rather massive hemorrhages in the past. There is still no great unanimity of opinion on the proper management of acute massive hemorrhage. In the past many authorities used only medical treatment, and we are all familiar with Meulengracht's method. A rather good working rule in our emergency service has been that those patients with duodenal ulcer who are less than 45 years of

age frequently may be expected to respond satisfactorily to treatment for massive hemorrhage; however, those who are more than 45 years of age are observed very closely in this type of complication as the risk of medical management is greatly increased above that point. It is the practice at the clinic to institute medical treatment for at least 48 hours in all cases in which bleeding occurs. If there is still evidence of continued or recurrent bleeding, immediate surgical treatment is very seriously considered. If the patient presents himself between hemorrhagic episodes and if there are other factors suggesting complication of the ulcer, one is much more inclined to suggest surgical intervention.

The second important primary complication is obstruction. The obstruction commonly falls into two different classifications: either the acute inflammatory type or the chronic sclerotic type. We are all familiar with the acute type which comes on shortly after the flare-up in the patient's ulcer symptoms. Most of these patients will respond in a short time to intensive medical treatment, which will include either frequent aspiration of the stomach or constant suction through a nasal tube, with either a retention type of liquid diet or a starvation program. Many of these patients will respond so remarkably in ten days or two weeks that they are not interested in any further treatment and they are dismissed to their homes, only to return later with the same problem all over again.

The patient who has the sclerotic type of ulcer presents a less dramatic episode when he is admitted but his history will reveal that the stomach cannot empty properly. There is a great deal of difference in the anatomic appearance of these ulcers, as the subacutely inflamed type is by far the more difficult to handle surgically. If a patient has a chronic obstructing type of duodenal ulcer, all are agreed that there is little to offer aside from surgical management.

Perforation of a duodenal ulcer is obviously an emergency when it is encountered as an acute phenomenon. There is agreement that the simplest most adequate closure of the perforation should be the method of choice. Further procedures during the emergency do not appear to be warranted. Roscoe Graham stated that the opening may be closed with a full omental patch rather than by suturing the defect shut. More extensive surgical procedures should be delayed until later. My colleagues and I do not insist that all patients who have perforated ulcer should return at a later date for radical resection but repeated perforations are commonly seen. Wangensteen has emphasized the fact that the attempts at perforation are represented by many layers of tissue resembling lamellae and actual tissue encountered may have no resemblance to the original duodenal serosa. The pancreas is commonly the site of a very deep crater. When such a pronounced defect is present it is not reasonable to expect that medical measures will be completely effective.

The fourth primary indication for surgical treatment is the intractability of the patient's pain and other symptoms. This must be carefully evaluated because patients will frequently state that they "have taken good care" of themselves but when one analyzes the situation, the care that they have taken has been far from perfect. When a patient has actually tried for a period of several years to follow the diet and all other instructions outlined for him and still finds that he is unable to perform daily work or lesser tasks in a comfortable manner, most physicians will agree that surgical treatment is the best course for him.

Added to this last is a fifth factor, notably any doubt whether the lesion at the outlet of the stomach is benign or malignant. Frequently, an occasion will arise when there is an obstructing lesion at the outlet with only a moderate degree of free acid present and other features which are not particularly helpful in establishing a proper diagnosis. In this type of case, my colleagues and I do not delay long in attempting to clear up the situation with medical means. All too often a small carcinoma just at the pylorus is known to present symptoms and signs strongly suggestive of duodenal ulcer. In this type of situation, surgical exploration is certainly justified.

Besides these primary considerations, there are certain secondary factors which must be taken into account. Among these is the economic status of the patient. His primary concern is in making a living and providing for his family. It may be that he is an outstanding man in his own occupation, but that occupation may make certain demands not allowed in a regimen for duodenal ulcer. In such cases, we are more inclined to advise early surgical treatment than when this factor is not present. In a small group of cases there is an inability to co-operate with the physician and, in spite of careful instruction in the dietary regimen, for one reason or another, the regimen cannot be followed so that surgical measures are the only recourse. Then, too, some patients will exhibit an excessive degree of free acid in spite of medical management and it appears that the only way to control this factor is to excise a large share of the acid-producing tissue. A prolonged history of symptoms of duodenal ulcer experienced by a middle-aged patient, when taken into consideration with other factors, usually inclines one toward a decision to advise surgical treatment, as does marked severity of symp-

toms which may persist in spite of a rather well-ordered life.

TRENDS IN SURGICAL TREATMENT

Having taken all of these indications into consideration, it is interesting to look back over the past 15 years of observation of a large number of patients on whom the diagnosis of duodenal ulcer was made. Figure 1 illustrates the trend of medical versus surgical handling. In 1931, more than 25

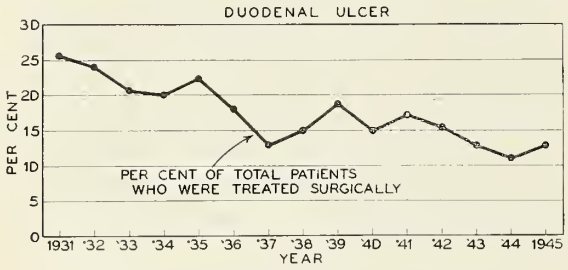


Fig. 1. Incidence of surgical treatment for duodenal ulcer.

per cent of all the patients who had a definite diagnosis underwent surgical treatment. This incidence fell off rather rapidly and steadily with only occasional minor variations during the entire 15-year period. In 1944, it reached perhaps the irreducible minimum of approximately 12 per cent being sent for surgical treatment. It is too early to be certain just which way the trend will be from that point forward because of the indeterminate status of vagotomy at the present time.

It is of interest to analyze this incidence of medical treatment further in order to see whether the type of operation being performed had any influence on the decision in the minds of the surgeon and the internist alike. In 1931, as shown in Figure 2, gastro-enterostomy was the operation most frequently performed for duodenal ulcer. It maintained

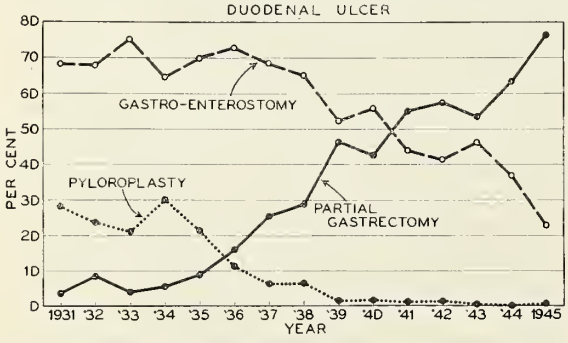


Fig. 2. Incidence of different surgical procedures for duodenal ulcer.

its favor for at least eight years, after which it rather rapidly dropped in incidence. During the same eight years, pyloroplasty was performed rather frequently but then rather suddenly it lost favor and has not been used at all in the past seven years. On the other hand, gastric resection was in its infancy at the beginning of this same period. It had a rather slow start but after the first seven years it became much more frequently used and climbed steadily and rapidly to equal gastro-enterostomy in 1940. Since that time it has replaced that operation in many instances.

A report from the Massachusetts General Hospital by Allen and Welch[8] as recently as October, 1946, reveals that these authorities still find gastric resection to be the most satisfactory treatment to date. However, they also conclude that when the procedure is considered from every angle, it may not be quite as good as they had hoped it might be. They feel, as any conscientious surgeon does, that the wide resection of a large amount of gastric tissue still seems a bit radical for what sometimes appears to be a very small duodenal ulcer. They apparently feel, as my colleagues and I do, that the newer approach, transthoracic vagotomy, may well prove to be the answer to at least part of the problem.

In many clinics, as has been suggested previously, gastro-enterostomy has been all but condemned in the treatment of duodenal ulcer. As in any type of treatment or operation, one must hasten to state that an operation improperly performed might be expected to give unsatisfactory results. Early investigators soon learned that complete diversion of the gastric contents away from the duodenum could produce a marked change in the acidity of the duodenal contents. It was noticed that almost all of the duodenal ulcers were healed by this operation. It was felt that the constant supply of the alkaline duodenal contents at the direct point where the stomach joined the jejunum might protect that region from development of an anastomotic ulcer. However, for some reason, this turned out to be inadequate protection. Perhaps the greatest trauma produced by the emptying of the stomach is borne by this one point. Certainly the highest acid value would be at this point and it is common knowledge that the formation of a jejunal ulcer after gastro-enterostomy is not a rare phenomenon. In cases of obstructing duodenal ulcer, it was learned that a properly fashioned gastro-enterostomy produced a proper emptying of the stomach. For this type of situation, immediate and permanent relief was obtained in many cases. It must always be borne in mind that gastrojejunal ulceration is observed from time to time after gastric resection also.

TECHNICAL CONSIDERATIONS

Some of the points usually stressed in the proper performance of gastro-enterostomy may be mentioned briefly. My colleagues and I prefer to attach the jejunum to the posterior wall of the stomach, placing the afferent loop high on the lesser curvature side and directing the stoma obliquely down-

ward and to the left so that the efferent loop reaches from the lowest point just to the left of the angle of the stomach. We prefer posterior gastro-enterostomy because it appears to be much more dependent, a much shorter loop on the afferent side is possible and the postoperative gastric retention seems to be much less of a problem. In performing the anastomosis, the opening should be large enough for proper emptying, it should not be placed too high and the intestine should not be put straight across the stomach. Wangensteen always emphasizes that in any type of anastomosis, turning too much of a cuff, employing too many rows of sutures or too wide an application of sutures can be expected to produce poor emptying. Two rows of sutures are ordinarily adequate but many surgeons prefer three, usually two rows of catgut sutures with an outer row of interrupted silk so that a stricture may not form, as might be the case if a running row of silk were used. It must be remembered that a dilated stomach will shrink to almost normal size and this will tend to make the stoma considerably smaller.

If posterior anastomosis is performed, my colleagues and I are careful to suture the stomach below the incision in the mesocolon for a distance of at least three-fourths inch (2 cm.). Improper attention to this detail will result in angulation of the proximal loop of the intestine, which may have a disastrous effect, or it may allow prolapse of another loop with obstruction. In certain cases it will be rather difficult to close the opening completely but it must be accomplished.

It has been acknowledged that anterior gastro-enterostomy is much easier to accomplish than posterior gastro-enterostomy with no danger to the blood vessels in the mesocolon, and, should gastro-jejunal ulceration develop later, it is considerably easier to approach the new ulcer to take down the anastomosis. We have not hesitated to employ anterior gastro-enterostomy for markedly obese patients with a high-riding, small stomach and a short thick mesocolon, but this situation does not occur very often.

Gastro-enterostomy at present has by no means been condemned at the clinic. In a very small group of cases it is the operation of choice. In an occasional case, it is the operation of expediency; thus an older patient who is a poor surgical risk, who has a chronic, fibrotic, obstructing duodenal ulcer with a relatively low value for free hydrochloric acid, in whom we are certain there is not a carcinoma of the pylorus and who is not a high-strung, emotionally unstable individual may well benefit by gastro-enterostomy (table 2). Occasionally one encounters a situation in which a satisfactory closure of the duodenal stump would be very questionable because of the inflammation or would definitely be hazardous because of the proximity to the ampulla or common bile duct. Gastro-enterostomy is occasionally still done in this type of case.

Here it should be noted that many surgeons throughout the country today are performing gastro-enterostomy and adding a subdiaphragmatic vagotomy at the same time. This is confusing the evaluation of the newer operation, for it has been proved that gastro-enterostomy will heal the ulcer. However, it is to be admitted that in a case of obstructing duodenal ulcer with highly acid secretion in which the patient is not a good candidate for extensive resection, the obstruction must be relieved by some sidetracking procedure and perhaps the great reduction in volume and acidity of secretion afforded by vagotomy will protect against further development of an anastomotic ulcer.

The more or less standard procedure at present in many clinics is subtotal gastrectomy. The purpose of the operation is obviously, first of all, to remove a large share of the acid-producing tissue. Another reason for performing subtotal gastrectomy is to provide a new opening to restore gastro-intestinal function. It has been our experience that retention is less common and much less severe after gastric resection than might be the case if gastro-enteros-

TABLE 1
Indications for Surgical Treatment of Duodenal Ulcer

Primary	*Secondary*
Obstruction	Economic or social status
Perforation	Repeated dietary and other indiscretions
Hemorrhage	Excessive gastric acidity
Failure of medical management	Long duration of symptoms
Pyloric lesion with possible malignancy	Exceptionally severe symptoms

TABLE 2
Choice of Operation for Duodenal Ulcer
Factors Favoring

Gastric-enterostomy	*Gastric resection*
Advanced age	Middle age
Low acids	High acids
No gastritis	Severe gastritis
Chronic lesion	Subacute lesion
Obstruction	Obstruction (optional)
Poor surgical risk	Good surgical risk
Minimal neurogenic factor	Marked neurogenic factor
Single ulcer	Multiple ulcers

TABLE 3
Some Factors Which Influence Choice of Operation for Duodenal Ulcer

Race	Severity of symptoms
Sex	Gastric acidity
Age	Roentgenologic evidence
Occupation	Gastritis
Economic status	Local nature of lesion
Personal habits	Multiplicity of lesions
Type of symptoms	Difficulty of operation

tomy had been performed. There is a resultant reduction in the capacity of the stomach and obviously there will be a great change in the physiologic aspects as well as the anatomic ones. Critics state that this small gastric pouch may produce untoward symptoms after the operation. An occasional patient is observed who has what is known as the "dumping" syndrome because the stomach empties so rapidly. I believe that this phenomenon is being observed less frequently than previously but it still should be kept in mind.

There are many modifications of gastric resection but the one most commonly performed is that known as the "posterior Polya" type. At least the lower two-thirds of the stomach and occasionally the lower three-fourths are resected. The danger point of the operation is in the inversion of the duodenal stump. In the highly inflamed duodenal tissue it is occasionally difficult to obtain a satisfactory closure. Frequently by doing the so-called *open* procedure in which no clamps are placed across the duodenum, a good inversion can first be obtained by the Connell suture without crushing any of the tissue. This can be reinforced by two rows of sutures, the last turning the stump to the pancreatic capsule, and then the stump can be covered with an omental pad. The surgeon is ever on the alert for the common bile duct, especially in cases in which there is much inflammation and considerable foreshortening of the first duodenal segment. In such cases the distance from the ampulla, which we have found normally to average 8 cm., may be shortened to 4 cm. or less. One other point of caution concerns the patient who has had pyloroplasty in the past. The pyloroplasty will have removed the pylorus and a variable amount of duodenal tissue. Cases are on record in which the common bile duct has been inverted or injured because this fact was not kept in mind.

The Polya procedure employs the entire width of the stomach in the anastomosis whereas the Hofmeister procedure closes the lesser curvature side, allows high resection on that side and permits a smaller anastomosis. The immediate result of this is that the anastomosis can be performed with better exposure, as one is working in the center of the surgical field, with the lesser curvature already secure. A word of caution here reminds one that the esophagus frequently comes in at what appears to be a low point because the fundus of the stomach extends so high above the esophageal junction. Cases are on record in which the esophagus has been sutured shut from below by high application of clamps in attempting to perform the Hofmeister procedure.

Recently it has been the conclusion among many of our surgeons that the actual removal of the duodenal ulcer is not as important as was once thought. Many cases have been described in which the ulcer has perforated or penetrated into the pancreas and the duodenum has been closed just proximal to this point, the ulcer *not* being removed. Subsequent examination has revealed that the ulcer has completely healed. Scattered reports from other clinics indicating severe injury to the ampulla or the common bile duct produced by attempting to excise a duodenal ulcer have led many surgeons to the logical conclusion that the removal of the ulcer is not worth what little additional protection might be gained.

When I was working with Wangensteen, he pointed out frequently that a very inflammatory ulcer is the greatest problem the surgeon can encounter in the duodenum. He pointed out that Bancroft had suggested that in this type of case, one can transect the pyloric antrum at a safe distance above the pylorus. One can then open the remaining stump and dissect out all of the gastric mucosa down to the duodenum. This will remove the gastrin factor of hormonal stimulation for continued gastric secretion. It still leaves the muscularis and serosa which can be well closed. Although this procedure produces an odd appearance in some cases, it usually is very satisfactory and certainly is far safer than radical excision of the duodenal ulcer itself. I have had occasion to employ this procedure in a few instances and have been much gratified with the results. Postoperatively, all of the patients have exhibited complete achlorhydria to the routine type of test meal. I believe this procedure should not be forgotten in the occasional cases in which it is appropriate.

Lahey[9] reminds us frequently that in cases of low-lying duodenal ulcer with considerable shortening of the first duodenal segment, it might be well to open the common duct and identify the ampulla by inserting a T tube having a long distal limb which will extend through the ampulla. However, if the principle holds true that the ulcer need not be excised in every case, it will probably not be necessary to identify the ampulla in this way in many instances.

At the Mayo Clinic, Priestley[10] and Clagett[11] have done several large series of gastric resection for duodenal ulcers, completing the operations as Billroth I procedures. They both feel that this is a highly satisfactory operation. It presupposes that the patient has an ulcer which can be removed and still leave enough normal duodenal tissue for a good anastomosis. The patient must have enough mobilizable duodenum so that adequate resection of gastric tissue can still be carried out without placing

tension on the anastomosis. Certainly far less surgical manipulation is necessary than in performing a Polya or Hofmeister operation, there is no threat to the mesocolon and no decision needs to be made whether the anastomosis is to be posterior or anterior. Priestley and Clagett point out also that there will be no anastomotic jejunal ulcer, that the duodenum is more resistant than the jejunum to recurrent ulceration and that should there be recurrence, the patient is no worse off than prior to the Billroth I type of anastomosis.

VAGOTOMY

Anyone seriously interested in any of the aspects of treatment of duodenal ulcer today will be conversant with the literature on vagotomy. It has been aptly stated that vagotomy today has arrived at the crossroads. In the relatively near future it is anticipated that the operation either will be extended to a large group of patients and will continue to be described in enthusiastic terms or will be relegated to a somewhat narrowed field. It is apparent that no two surgeons or investigators have arrived at exactly the same conclusions regarding this method of treatment. The thoracic surgeons will frequently favor transthoracic division of the nerves, whereas those primarily interested in abdominal surgery will feel that they have approximately the same chances with the subdiaphragmatic approach.

The medical profession is tremendously indebted to Dragstedt for his exhaustive research and evaluation of this field. Dragstedt has emphasized that the success of the operation is based on complete resection of the vagus nerves to abolish the psychic phase of gastric secretion and perhaps other neurogenic influences on the gastric mucosa. He has pointed out the evidence accumulated by Cushing, who reported an increased occurrence of acute perforating ulcer of the stomach and duodenum in certain patients suffering from lesions of the brain. Perhaps the most significant features stressed by Dragstedt are that gastric hypermotility has been a marked feature in most cases of ulcer and that there is an excessive secretion of gastric juice occurring in an empty stomach in the absence of the usual stimulus of food. Complete section of the vagus nerves will remove both of these factors. It is pointed out that after vagotomy, the same type of ulcer pain previously noted can be produced again by administering hydrochloric acid to the patient. In Dragstedt's opinion this shows that the relief of the pain is not due to interruption of the sensory fibers. It is now widely corroborated that healing of a large ulcer crater will frequently be shown by microscopic and roentgenographic evidence after this type of operation. Dragstedt further has stated that excessive secretion of the gastric juices occurring in the empty stomach without a buffering effect of food and the neutralizing elements from duodenal secretion will obviously have much higher chance of producing ulceration.

The excessive hyperacid secretion noted by many investigators in the fasting stomachs of patients suffering from ulcer most probably is under a direct psychogenic or neurogenic control and, therefore, interruption of the vagus nerves appears to be a highly satisfactory procedure. It is now commonly known that the nocturnal gastric secretion of the ulcer patient is apparently the most significant factor, as the secretion then is most voluminous and is most highly acid. The great majority of investigators have reported that there is reduction of the amount of gastric secretion and the degree of acidity in the patients who have complete interruption of the vagus nerves. Decrease of the motor function of the stomach has also been listed and this factor has led other surgeons to proceed cautiously with vagotomy. Gastric retention has been reported from many centers, especially when no further surgical procedure such as gastro-enterostomy has been performed. The enthusiasts feel that the retention frequently rights itself within six to nine months although it may cause considerable distress to the patient during that time.

The time-honored operations for duodenal ulcer have now had at least 15 years for evaluation but the ultimate conclusion concerning vagotomy rests now only with the test of time. One frequently reads, especially in the reports from older, more experienced surgeons, that new operations are to be considered in the light of many which have been discarded. A prime example of this is total thyroidectomy, formerly done in the treatment of certain types of heart disease.

An attempt to reach a uniform conclusion concerning vagotomy today that would apply to many different clinics and centers ends only in confusion. It is known that in a series of dogs that had undergone bilateral complete interruption of the vagus nerves by the transthoracic approach, the initial achlorhydria later was replaced by a definite degree of free acid in the stomach. In some of these animals, the preoperative level has been reached five years after the operation, and even at the end of five years some of the stomachs still revealed a markedly dilated state suggesting definite atony. However, one cannot overlook the fact that the early results being reported by the best investigators and having included a follow-up period of more than three years indicate that many patients are still completely well. This emphasizes the fact that other effects of vagotomy need not be considered too important. Abdominal distention has been reported but its exact nature is not entirely understood. The

importance of the interruption of the secretory stimulus to the accessory glands of digestion is also not completely understood, but, from reports at hand, it is not entirely essential.

From the foregoing discussion, it is obvious that at present the definite indications for vagotomy will vary with the surgeons who are performing the operation for duodenal ulcer. The large majority of surgeons who have mastered the technic and all of the factors in performing gastric resection are still somewhat reluctant to attempt vagotomy widely. They feel that they now have the means at their disposal for the control of a relatively large number of patients and they continue to perform wide resection. At the same time, they are carefully evaluating all reports from surgeons who are interested in developing the field of vagotomy. The outstanding impression that is left with one after surveying the literature is that, before a definite conclusion is reached, this field should be evaluated further by men such as Dragstedt and others who have done such commendable work in it. The argument about supradiaphragmatic versus infradiaphragmatic interruption of the vagus nerves probably will continue for the present.

An interesting position has been taken by Lahey,[9] who has pointed out that the greatest single drawback to wide gastric resection is the definite incidence of development of further ulcerative change. Although this incidence is extremely low, any measure which might further diminish it is, in Lahey's opinion, well worth while. The position taken at the Mayo Clinic now is that the abdomen should be explored first because of the possibility of carcinoma in a gastric ulcer. Because the morbidity and the mortality rates from gastric resection for these conditions have been reduced to such a low figure, we are now rather loath to change from a direct approach to a more indirect one. Lahey and his associates feel that the employment of vagotomy in duodenal ulcer is most strongly indicated in the prophylaxis against gastrojejunal ulceration. Since the Polya method of anastomosis leaves a wide stoma, there should be excellent possibility for drainage of food contents. The technical difficulty of secondary resection in cases of gastrojejunal ulcer can be extremely perplexing. For these reasons, Lahey and his associates have performed bilateral infradiaphragmatic vagotomy in all cases of gastric resection for duodenal ulcer. They remove a 3 cm. section of the vagus nerve on each side. They have pointed out again that the operation is not a time-tried one.

Along these same lines, Walters and his associates[12] felt that the most thorough knowledge of the anatomy of the vagus nerve just below the diaphragm is indicated; therefore, they performed dissections in more than 100 cases at necropsy. Their conclusion is that in more than 90 per cent of the cases, the infradiaphragmatic approach permits almost as perfect a division of all of the vagus nerve supply as does the transthoracic approach. In less than 10 per cent of the subjects, the exact anatomic distribution of the nerve fibers was inconstant and in a few of the subjects there was no one well-developed trunk on one or on both sides of the esophagus and the vagus nerve supply was distributed through many small branches. It is in the latter type of case that the surgeon would probably realize a less perfect result in attempting to interrupt the entire vagus nerve supply.

Taking the other viewpoint are Moore and his group[13] in Boston. In their report, all of the patients who had duodenal ulcer had undergone transthoracic vagotomy. It was felt that a much more complete division of the nerves was possible in this way. Their results are carefully and critically classified. It was noted that even in the cases in which satisfactory results were obtained, there were occasional gastro-intestinal symptoms. Some of these were transient but the patients were concerned enough about them that from that standpoint the immediate postoperative results were a little short of what they had expected. Three of the patients complained of diarrhea which was still persisting three to five months after the operation with three to five daily stools. The diarrhea appeared to the surgeons to be a source of inconvenience but not of actual physical detriment. Two patients had some symptoms suggesting fullness and there was also a feeling of faintness in several instances. This observation is interesting in that the so-called vagal syndrome after gastric resection without vagotomy presented much the same picture.

Study of the literature reveals definite contraindications to interruption of the vagus nerves. Earlier reports had sounded a word of caution about the operation in hypertensive patients, especially those who had previously undergone various types of operations for interruption of the sympathetic fibers. There are scattered reports in just such cases. Moore and his associates reported one death resulting from a cerebrovascular accident nine months after vagotomy. This late death raises the question whether hypertension would be more rapidly progressive in some of these patients. It also made Moore and his associates wonder whether any type of sympathetic resection should be performed on patients who have active duodenal ulcers and on the other hand whether vagotomy should be offered to any patient who has severe hypertension. Moore and his associates felt that the vagotomy was of definitely more benefit to those patients who had previously undergone only gastro-enterostomy than

to those who had undergone an inadequate gastrectomy. This is at variance with reports of other surgeons who feel that the stomach perhaps will not empty as well after gastro-enterostomy as after partial gastrectomy. However, I believe the point which Moore wishes to make is that considerably more difficulty was experienced in those patients with inadequate gastrectomy in that a large share of the pyloric antrum was still present. He wishes to point out that perhaps many surgeons are too prone to seize on the reduced motility of the stomach as complete failure of the operation rather than as only a temporary result.

All of the investigators urge that anyone attempting to do a series of these operations with whatever approach, should check the results by means of the insulin test. The response of the level of gastric acidity to hypoglycemia produced by intravenous injection of 20 to 25 units of insulin is definitely abnormal in cases of duodenal ulcer. This test is not without its own severe effects and actually can be dangerous if it is not completely controlled at all times. Studies of blood sugar levels must be made and all of the facilities for the immediate intravenous injection of solution of glucose must be available.

The criterion for the proper performance of complete bilateral vagotomy is the abolition of the gastric acid response to the hypoglycemia produced by this intravenously administered dose of insulin. Any tendency toward abnormal response suggests that there are still some fibers of vagus nerves remaining intact. Studies of gastric motility have been made employing intragastric balloons and kymographic tracings. Moore and others feel that the gastric stasis is overcome within nine months although delay in the emptying of the stomach may persist. In addition to the test for suggestive pain which is demonstrated by the introduction of hydrochloric acid into the vagotomized stomach, it is possible to produce gastric pain by overdistention of the balloon, which once again produces symptoms showing that the result of the operation is not contingent on relief of pain alone.

Further study of the literature will only present arguments either for or against situations which now appear to be quite well established and will report only the present preferences or prejudices of the various investigators. If one is deciding which procedure to employ in the surgical management of duodenal ulcer, he still must keep in mind that his criterion is going to be the best surgical result which he personally can produce (Table 3). At present our choice of operation at the clinic still favors wide gastric resection in those cases in which there are definitely one or more clear-cut indications for surgical intervention.

Here it must be emphasized that in the past not enough practical psychologic analyses have been available to the surgeon at all times. As Dragstedt pointed out earlier and as other surgeons have reemphasized, patients in the past have been considered either candidates for the psychiatric service in the hospital or else strictly surgical problems. It becomes more and more apparent that in many of those cases in which the result after surgical treatment is considered a failure, one can look back with the wish that complete psychiatric investigation had been performed before surgical intervention. A very important point for the surgeon to establish in his own investigation is whether the so-called intractable pain with which the patient presents himself is actually pain produced by the ulcer itself. It has been our experience that ulcer pain, no matter how intense and no matter of how long duration, can usually be controlled, if only for a very short time, by extensive medical measures in the hospital. If the patient has some bizarre tendencies in his pain pattern or some slight suggestion of psychologic imbalance, it would be well worth while to defer any further thought of surgical intervention until all of these factors have been properly evaluated. All too often, one sees a patient who apparently has withstood a fairly large surgical procedure, and from all anatomic standpoints the operation has been successful, but the patient still has the same type of pain experienced for years. In any conclusion concerning any type of surgical procedure, the results will be clouded if any of the unstable or psychologically unbalanced patients are included, no matter which way the results appear to point.

Being confronted then by a patient who definitely presents several of the primary indications for some type of surgical intervention, one will constantly be questioned concerning the new "nerve operation." Several of the surgeons in the clinic at present feel that the indications for vagotomy become more definite when there is nothing else which will assure a good result in the patient. An example of this type of condition is a young person, especially a male patient less than 30 years of age, who is obviously a high-strung type of individual, working at all times under a great degree of tension; analysis of whose gastric contents reveals high acidity, and whose pain is so intractable that he cannot perform his usual work properly and perhaps is comfortable only when he is under medical supervision in a hospital. Added to this, he will probably have a long history of ulcer distress in spite of his relative youth. This narrows the field down at present to a relatively small group of patients. In the hypothetical case just cited, obviously that type of man represents a group who may have further difficulty even after a rather wide gastric resection and who

most certainly would have difficulty after gastroenterostomy alone.

From my own standpoint, the indications for vagotomy appear at the moment to be rather limited. At present, transthoracic vagotomy is being performed occasionally at the clinic for those patients who have undergone adequate gastric resection previously and who have had further ulceration in the jejunum. Walters has been vitally interested in this topic and his indications will necessarily be different from those that others might have. His approach has been mentioned as the subdiaphragmatic, and vagotomy is frequently combined with some other type of procedure. However, Walters re-emphasizes that the exact nature of the lesion must be determined in any case and that an obstructive type of lesion at the outlet of the stomach most certainly will require some type of further surgical intervention even though this lesion is proved to be benign. The surgeons at the clinic feel that evidence of pyloric obstruction, whether clinical or roentgenologic, contraindicates the performance of vagotomy alone. Those patients who have come to the clinic after the performance of vagotomy and have presented further symptoms are occasionally found to give positive response to the insulin test; in other words, in a few cases it has been felt that an incomplete vagotomy has been performed. Obviously, these patients will not be criteria for any conclusions concerning vagotomy.

CONCLUSIONS

From my own present standpoint, therefore, my conclusions at the moment must be that a duodenal ulcer is strictly a medical problem until proved otherwise but that, in perhaps 12 per cent of the cases in which the diagnosis of duodenal ulcer has been accomplished, medical measures will not be completely satisfactory. One or more of the now well-established primary and secondary indications will be adequate reason for surgical intervention. When confronted with a complicated duodenal ulcer which requires surgical management, I have felt that, for young, active ulcer patients who have a high degree of free acid, the operation of choice is an adequate gastric resection, usually completed as a Polya anastomosis or a Hofmeister modification of it. All of these patients are tested by analysis of gastric contents after operation and the degree of immediate anacidity has been most encouraging. The anacidity persists for at least four years in more than 80 per cent of the cases. A low concentration of free hydrochloric acid has been noticed in perhaps 20 per cent of the cases.

In dealing with the duodenal stump, the Bancroft modification need be employed only rarely but at present it appears to be a good alternative, to be kept in mind.

The final thought that I have is that a more nearly complete and a more practical psychologic approach to the patient who has complicated duodenal ulcer will probably insure a higher percentage of cures.

REFERENCES

1. Dragstedt, L. R.: Section of the vagus nerves to the stomach in the treatment of peptic ulcer. (Editorial.) Surg., Gynec. & Obst. *83*:547, Oct., 1946.
2. Priestley, J. T.: The choice of treatment for duodenal ulcer. J. Iowa M. Soc. *32*:401, Sept., 1942.
3. Hay, L. J., Varco, R. L., Code, C. F. and Wangensteen, O. H.: The experimental production of gastric and duodenal ulcers in laboratory animals by the intramuscular injection of histamine in beeswax. Surg., Gynec. & Obst. *75*:170, Aug., 1942.
4. Hunt, V. C.: Duodenal ulcer: Indications for and extent of partial gastrectomy. California & West. Med. *56*:6, Jan., 1942.
5. Judd, E. S., Jr.: Experimental production of peptic ulcers with caffein. Bull. Am. Coll. Surgeons. *28*:46, Feb., 1943.
6. Roth, J. A. and Ivy, A. C.: The pathogenesis of caffeine-induced ulcers. Surgery. *17*:644, May, 1945.
7. Wangensteen, O. H. and Lannin, B.: Criteria of acceptable operation for ulcer; importance of acid factor. Arch. Surg. *44*:489, Mar., 1942.
8. Allen, A. W. and Welch, C. E.: Subtotal gastrectomy for duodenal ulcer. Ann. Surg. *124*:688, Oct., 1946.
9. Lahey, F. H.: A position on the employment of vagotomy in the surgical treatment of peptic ulcer. Lahey Clin. Bull. *5*:66, Jan., 1947.
10. Priestley, J. T.: Personal communication to the author.
11. Clagett, O. T.: Personal communication to the author.
12. Bradley, W. F., Small, J. T., Wilson, J. W. and Walters, Waltman: Anatomic considerations of gastric neurectomy. J.A.M.A. *133*:459, Feb. 15, 1947.
13. Moore, F. D., Chapman, W. P., Schulz, M. D. and Jones, C. M.: Resection of the vagus nerves in peptic ulcer; physiologic effects and clinical results, with a report of two years' experience. J.A.M.A. *133*:741, Mar. 15, 1947.

STILBESTROL MEDICATION

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Dodds, in a series of investigations starting in 1932, found a whole series of phenanthrene compounds which were estrogenically active. The interesting feature was that the only common point in their chemical structure and that of estrone and estradiol was the phenanthrene nucleus. Further work by Dodds, Robinson, and others in England obtained a whole series of estrogenically active synthetic substances, the most potent of which is the substance we know as diethyl-stilbestrol, obtained in 1938. The great clinical importance was that estrogenic substances became available in large quantities, cheap in price and potent by mouth. Since that time, diethyl-stilbestrol, which we commonly call stilbestrol, has been proven to be more

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potent than the natural estrogens. Due, perhaps, to differences in metabolism, the synthetic drug is more resistant to deactivation, thus having a cumulative effect and being potent by mouth. The early reports of toxicity of the drug have been disproved to a large extent, and are rarely encountered with small dosage. These were gastro-intestinal disturbances, liver damage, and depression of the bone marrow. As far as is known, the latter two have never been encountered in the human subject. Diethyl-stilbestrol can be used in any clinical situation where estrogenic substance is indicated, and the largest field for its use, naturally, is the menopause.

However, there are many women to whom the menopause comes as a boon, with striking improvement in general health and well-being. Only in a small minority of women are the characteristic menopausal symptoms sufficiently severe to interfere materially with health and happiness as measured roughly by the necessity for medical attention. Many of the symptoms complained of by women in the fifth decade of life are wrongly attributed to the menopause. The characteristic symptoms of the menopause are the well known vascular phenomena, the periodic flushes and sweats and, less frequently, the flashes of heat which may involve the whole body. The vasomotor phenomena may be much influenced by the patient's state of mind. Thus, endocrine therapy is only a part of the management of the menopause. We do not know the mechanism of the vascular phenomena; perhaps there are points of contact between the hormone and cerebral pathways, thus producing a psychoneurohormonal basis for the disturbances. At any rate, the withdrawal or lessening of the ovarian secretion produces a disturbance in the pituitary-ovarian relationship producing the menopausal upset. Thus, the administration of estrogens to women suffering with undoubted menopausal symptoms is strictly in accord with our present day knowledge of physiology. However, it is necessary to evaluate carefully the patient's symptoms. Headaches, dizziness, and irritability might perhaps be secondary to vascular upsets but they are also frequently associated with functional neuroses. Hence, in determining the effectiveness of treatment, only the relief of vasomotor phenomena should be used. One needs to be something of a gynecologist, an endocrinologist, and a psychiatrist as well as using common sense in treating the menopausal patient. In using estrogenic substances, it is important to remember that they are growth stimulating in their action. All parts of the genital system are stimulated by them.

Atypical cellular proliferation with metaplasia or production of new growth has been elicited with estrogens in numerous instances. Loeb and Lacassagne and others have produced mammary adenocarcinoma in certain strains of mice. Certainly, there is enough evidence in the literature on the subject that abnormal estrogenic therapy can be classified conditionally as one of the factors responsible for breast cancer. It is also interesting that since 1939 Allaben and Owen, Auchincloss and Haagenson, Parsons and McCall have all reported cases in the human of carcinoma of the breast following estrogenic therapy. It was impossible to state specifically that the estrogen produced the cancer since too many other factors are involved, such as local trauma, heredity, and the like. It has been pointed out many times that castration will reduce the incidence of cancer of the breast or reduce its rapid spread.

In regard to the uterus and cervix, several investigators have done a large amount of work on the subject. Adenomatous polyps of the uterus descending into the vagina have been produced in mice by Lipschutz, Vargas and others. Pre-cancerous formations have been produced in the portio by Loeb, Suntzeff, Burns and others. Allen and Gardner have produced a definite carcinoma of the cervix. Many observers have reported the growth of uterine fibroids—and this is easily recognized clinically in the human subject. Gremmell and Jeffcoate in 1939 reported three cases of carcinoma of the cervix in women following estrogenic therapy. They could not prove a direct relationship but pointed out the importance of caution. The possibility of estrogens playing a role in the development of endometriosis has also been pointed out. Bradford in 1944 reported a case of endometriosis in a post-menopausal woman following estrogenic therapy. Meigs and associates in 1946 reported a case of adenocarcinoma following extensive estrogenic therapy.

Certainly hyperplasia of the endometrium is acknowledged as evidence of overactivity of estrogenic hormone. Nevertheless, such hyperplasia is merely an exaggerated and persistent proliferative phase of the endometrium, and it disappears when the effect of estrogens is withdrawn. It is, therefore, not a true neoplasm, since the process is reversible. However, carcinoma not infrequently develops in an endometrium previously in a state of innocent hyperplasia. All grades of epithelial activity from innocent hyperplasia to virulent carcinoma can be demonstrated in the same uterus.

Tumor growth may be defined according to Lipshutz as a localized cellular proliferation which is atypical in intensity of growth and is metaplastic. It must also persist even though the extracellular stimulus which may have been responsible for its proliferation is no longer active. Thus, the uterine fibroid and endometrial hyperplasia are not true tumor growths, since they regress when estrogenic

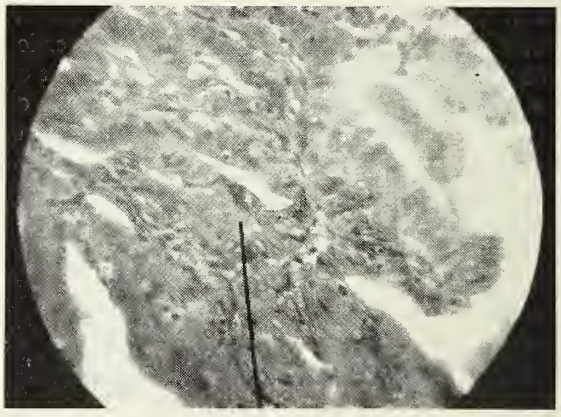
stimulation is removed. The carcinogenic action of estrogens is comparable to that of the carcinogenic hydrocarbons, since here, also, the action is reversible under certain timing conditions, but no one doubts their true carcinogenic qualities.

From a clinical standpoint, it is noteworthy that carcinoma of the endometrium has a slight tendency to favor nulliparous women and it has also been reported to have a special predilection for women with a delayed menopause. Both of these trends suggest an endocrine factor. The exact relationship between hyperplasia and carcinoma is a disputed point. There is another group of cases which may constitute the most important evidence for an estrogenic factor in endometrial cancer. This is the steadily increasing list of patients who have been observed with an association of a granulosa or thecal cell tumor of the ovary with an adenocarcinoma of the endometrium. Attempts to demonstrate excessive estrogenic substance in the body fluids of patients with endometrial hyperplasia have not met with invariable success—although, here again, it is frequently found associated with granulosa cell tumors. The explanation of endometrial hyperplasia in post-menopausal women is not clear. There are two possibilities, a small unrecognized granulosa cell tumor, or an extra-ovarian source of estrogen. The possibility of endometrial hyperplasia preceding actual adenocarcinoma has not proved to be true clinically since a follow-up of women showing hyperplasia has not demonstrated an abnormally high incidence of cancer. Since adenocarcinoma most commonly occurs in the post-menopausal women, the endocrinological connection seems complicated. The association of a late menopause or persistent follicular ovarian cysts has been suggested as possible factors.

In all fairness, it must be mentioned that certain investigators, Emge, Salmon, Geist, Walter and others have produced careful work casting doubt upon any carcinogenic action of estrogens, particularly in humans. However, the great volume of work that has been done on the subject would certainly indicate that estrogenic stimulation in association with other specific factors is carcinogenic. Since diethyl-stilbestrol is a potent, synthetic, estrogenic substance, these conclusions have proved to be applicable to it. If there is danger, and there would seem to be, the potency of this drug makes it even more dangerous.

The phenomenon of bleeding following estrogenic therapy is recognized by all of us. The proliferative endometrium sloughs off with the loss of its stimulating agent. This usually occurs within 7 to 20 days after cessation of therapy. For the reason mentioned above, diethyl-stilbestrol more frequently produces this result than other forms of estrogenic therapy. If the proliferation of the endometrium becomes too extensive, then sloughing of the external layers may occur during the course of estrogenic therapy. This does not occur very often except in patients being treated with diethyl-stilbestrol, where it occurs fairly commonly. This bleeding occurring in a woman of menopausal age must be investigated to rule out the possibility of cancer, thus complicating the picture. The number of curettements required as a result of bleeding following estrogenic therapy has become impressive. It has been estimated in the past three or four years that as many as one-third of the curettages done in this hospital have been for that reason. The case presented will demonstrate some of the problems involved.

This is a case of a 68-year-old white female admitted with a complaint of vaginal bleeding for the past week. She had had a previous attack one year before while using stilbestrol suppositories for vaginitis. However, she had not been using the stilbestrol for at least one month preceding admission. Examination showed moderate enlargement of the uterus. Curettings were increased in amount and grossly suspicious. Microscopic sections showed



adenocarcinoma as demonstrated in the photomicrograph. Despite treatment this patient died in about one year.

Obviously, there is no way of being certain if stilbestrol did or did not play a part in this picture, but it makes one somewhat suspicious.

It would seem that all estrogens, and especially diethyl-stilbestrol because of its potency, be administered with considerable caution.

There are certain conditions that should be met in the administration of estrogens. They should only be administered to the patient with severe vasomotor phenomena. The patient who complains of only an occasional hot flash or one whose complaints are mainly functional is not a candidate for this

kind of therapy. This applies to the surgical, radiation or physiological menopause. The drug should be administered in small doses, just as little as possible to relieve the patient's symptoms. The dosage we are using at present is 0.25 mgm. of diethylstilbestrol three time weekly, and it works very effectively. The administration of the drug should never be continued over an indefinite period of time. The dose should be decreased as rapidly as possible with the idea of complete cessation as early as possible. If it is continued over any length of time, there should be rest periods when no drug is given. The continuous administration of small doses over a prolonged period would seem to be more dangerous from the available evidence on the subject than larger doses over shorter periods of time.

Patients with a strongly suggestive family history of cancer are not good candidates for estrogenic therapy. Nor are those with any suggestive lesions of the breast, cervix, or endometrium.

The patient must be seen at frequent intervals and instructed to report any abnormal bleeding. If such arises, a diagnostic curettage is indicated. The problem of carcinogenic action of estrogens is far from being proved, but its danger should certainly lead to caution in its use.

BIBLIOGRAPHY

Aaron, Myers, Lipsitz and Hubbard—Am. Jour. Digest Dis. 8:437-439. Nov., 1941.
Allaben and Owen—Jour. A.M.A. 112:1933-1934. May 13, 1939.
Allen—Endocrinology. 30:942-952. June, 1942.
Allen—Jour. A.M.A. 114:2107-2114. May 25, 1940.
Allen and Gardner—Cancer Research. 1:359-366. May, 1941.
Ararbanel, Aranow and Goodfriend—Jour. A.M.A. 121:1123-1130. April 3, 1943.
Auchincloss and Haagenson—Jour. A.M.A. 114:1517-1523. April 20, 1940.
Bennett—Am. Jour. Obstet. and Gyn. 44:296-303. Aug., 1942.
Berlind—Jour. Clin. Endocrinol. 3:457-461. Aug., 1943.
Bradford—N. C. Med. Jour. 5:530-531. Nov., 1944.
Briscoe—Pennsylvania Med. Jour. 48:579-580. Mar., 1945.
Cheu—Quar. Bull. Indiana Univ. Med. Center. 3:15-18. Jan., 1941.
Council on Pharm. and Chem.—Jour. A.M.A. 119:632-635. June 20, 1942.
Council on Pharm. and Chem.—Jour. A.M.A. 124:233. Jan. 22, 1944.
Cramer—Am. Jour. Cancer. 38:463-472. April, 1940.
Crossen and Loeb—Arch. Path. 37:202-212. March, 1944.
Cuyler, Hamblen and Davis—Jour. Clin. Endocrinol. 2:438-441. July, 1942.
Davis—Surg. Clinics N. Am. 113. Feb., 1943.
Dodds—Edinburgh Med. Jour. 48:1-13. Jan., 1941.
Doisy—Jour. A.M.A. 116:501-505. Feb. 8, 1941.
Eisen—Cancer Research. 1:457-464. June, 1941.
Eisen—Cancer Research. 2:632-644. Sept., 1942.
Eisfelder—Jour. Clin. Endocrinol. 2:628-632. Nov., 1942.
Emge—Surg., Gyn. and Obstet. 68:472-480. Feb. (No. 2A), 1939.
Engle and Crafts—Proc. Soc. Exper. Biol. and Med. 42:293-296. Oct., 1939.
Finkler—Med. Women's Jour. (No. 2). 52:28-30. Feb., 1945.
Fluhmann—Jour. A.M.A. 125:1-5. May 6, 1944.
Fremont-Smith, Meigs, Grahm and Gilbert—Jour. A.M.A. 131:805-808. July 6, 1946.
Gardner and Allen—Yale Jour. Biol. and Med. 12:213-235. Dec., 1939.
Gardner, Allen, Smith and Strong—Jour. A.M.A. 110:1182-1183. April 9, 1938.
Geist and Salmon—Am. Jour. Obstet. and Gyn. 41:29-36. Jan. 1941.
Geist and Salmon—Clinics. 1:1197-1215. Feb., 1943.
Geist, Walter and Salmon—Am. Jour. Obstet. and Gyn. 42:242-248. Aug., 1941.
Greene and Dorr—Jour. Clin. Endocrinol. 1:821-823. Oct., 1941.
Gremmell and Jeffcoate—Jour. Obstet. and Gyn. Brit. Emp. 46: 985-993. Dec., 1939.
Groner, Beall and Wilson—Am. Jour. Path. 17:87-92. June, 1941.
Grotty, Schloss and Lyford—Sur., Gyn and Obstet. 77:130-135. Aug., 1943.
Haddow, Watkinson and Paterson—Brit. Med. Jour. 2:393-398. Sept. 23, 1944.
Haltain—Edinburgh Med. Jour. 49:73-90. Feb., 1942.
Hamblen—Jour. A.M.A. 117:2205-2207. Dec. 27, 1941.
Hamblen, Cuyler, Hirst and Horner—Jour. Clin. Endocrinol. 2:369-372. June, 1942.
Harding—West. Jour. Surg. 50:207-215. April, 1942.
Hastings—Pennsylvania Med. Jour. 45:960-964. June, 1942.
Hawkinson—Jour. A.M.A. 111:390-393. July 30, 1938.
Heller, Chandler and Myers—Jour. Clin. Endocrinol. 4:109-116. March, 1944.
Henry—Can. Med. Jour. 53:31-37. July, 1945.
Hepp—Pennsylvania Med. Jour. 44:718-721. March, 1941.
Hoffman—Minnesota Med. 24:222-225. April, 1941.
Joffe—Jour. Clin. Endocrinol. 1:677-679. Aug., 1941.
Kafka—South. Med. and Surg. 107:137-144. April, 1945.
Karnaky—Jour. Clin. Endocrinol. 5:279-284. July-Aug., 1945.
Karnaky—South. Med. Jour. 37:510-522. Sept., 1944.
Kretzschmar and Barnes—Am. Jour. Obstet. and Gyn. 43:668-671. April, 1942.
Kurzrock, Wilson and Perloff—Endocrinology. 26:581-586. April, 1940.
Lackner and Tulsky—Jour. Clin. Endocrinol. 1:415-418. May, 1941.
Lipschutz—Essays in Biol. 293-313. 1943.
Lipschutz, Rodriquez and Vargas—Endocrinology. 28:664-668. April, 1941.
Lipschutz and Vargas—Endocrinology. 29:622-627. Oct., 1941.
Lipschutz and Vargas—Lancet. 1:541-543. Mar. 23, 1940.
Loeb—Jour. Nat. Cancer Inst. 1:169-195. Oct., 1940.
Loeb, Suntzeff and Burns—Am. Jour. Cancer. 34:413-427. Nov., 1938.
Loeb, Suntzeff and Burns—Am. Jour Cancer. 35:159-174. Feb., 1939.
Margolese—Jour. Clin. Endocrinol. 4:394-399. Aug., 1944.
McKensie—Journal-Lancet. 61:94-100. Mar., 1941.
Morrell—Jour. Clin. Endocrinol. 1:419-423. May, 1941.
Morton—Sur., Gyn. and Obstet. 72:345-362. Feb. (No. 24), 1941.
Nelson—Endocrinology. 24:50-54. Jan., 1939.
Novak—Jour. A.M.A. 110:619-622. Feb. 26, 1938.
Novak—Jour. A.M.A. 125:98-99. May 13, 1944.
Palmer—Am. Jour. Obstet and Gyn. 37:492-499. Mar., 1939.
Palmer—Am. Jour. Obstet. and Gyn. 44:56-65. July, 1942.
Parsons and McCall—Surgery. 9:780-786. May, 1941.
Pincus and Granbard—Endocrinology. 26:427-432. Mar., 1940.
Pincus and Pearlman—Cancer Research. 1:970-974. Dec., 1941.
Rock and Menkin—New Eng. Jour. Med. 227:552-556. Oct. 8, 1942.
Rose—Bull. Am. Soc. Control Cancer. 24:6-8. April, 1942.
Ross and Dorfman—Cancer Research. 1:52-54. Jan., 1941.
Salmon, Geist and Walter—Am. Jour. Obstet. and Gyn. 40:243-250. August, 1940.
Salmon, Walter and Geist—Proc. Soc. Exper. Biol. and Med. 40:252-254. Feb., 1939.
Scheffey, Farell and Hahn—Jour. A.M.A. 217:76-80. Jan. 13, 1945.
Sevrnighaus—Jour. A.M.A. 116:1197-1199. Mar .22, 1941.
Shimkin and Grady—Jour. Nat. Cancer Inst. 2:55-60. Aug., 1941.
Shimkin and Grady—Pro. Soc. Exper. Biol. and Med. 40:246-248. Oct., 1940.
Smith and Smith—Am. Jour. Obstet. and Gyn. 36:769-786. Nov., 1938.
Soule—Am. Jour. Obstet. and Gyn. 44:684-686. Oct., 1942.
Stohr—Am. Jour. Obstet. and Gyn. 43:586-599. April, 1942.
Suntzeff, Kirtz, Blumenthal and Loeb—Cancer Research. 1:446-456. June, 1941.
Taylor—Am. Jour. Obstet. and Gyn. 36:332-349. Aug., 1938.
Taylor—Surgery. 16:91-107. July, 1944.
Teague—Internat'l. Med. Digest. 41:374-378. Dec., 1942.
Turner, Davis and Hamblen—Jour. Clin. Endocrinol. 3:453-454, 455-456. Aug., 1943..
Watson—Jour. Clin. Endocrinol. 4:571-574. Dec., 1944.
Wollner—Jour. Clin. Endocrinol. 1:228-233. Mar., 1941.
Zondek—Jour. A.M.A. 114:1850-1854. May 11, 1940.
Zondek—Jour. A.M.A. 118:705-709. Feb. 28, 1942.

Diseases of the heart and blood vessels kill three times as many people as cancer, six times as many as accidents, eight times as many as pneumonia, 11 times as many as tuberculosis, and at least 500 times as many as infantile paralysis, reported Dr. Theodore G. Klumpp, president of Winthrop-Stearns, Inc., when addressing a meeting of the Michigan Academy of Pharmacy. He urged expansion of research activities in the field of basic medical sciences and deplored the lack of financial support for scientists and equipment.

DIGITALIS GLYCOSIDES, OUABAIN AND STROPHANTHIN IN GENERAL PRACTICE

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The isolation of active principles from crude drugs is a major contribution of modern chemistry to the science of therapeutics, but the variety and number of active glycosides prepared from digitalis have led to some confusion. These glycosides also differ pharmacologically. These pharmacologic differences, if not appreciated, may also be a source of misunderstanding, hence some conservative authorities advise the use of whole leaf digitalis preparations only. Ouabain and strophanthin must be considered as digitalis substitutes in many cases.

It is our purpose to correlate the research in this field so that the student and general practitioner may better understand the numerous publications, and be able to select that drug which is especially suited to the needs of the individual patient.

Table I presents the source and character of the active principles of digitalis, showing the progression from *Digitalis lanata and D. purpurea* to the natural glycosides, and to the hydrolytic glycosides.

Many proprietary names are used to designate the same glycoside. We shall limit our discussion largely to those which are recognized by the latest revision of the Pharmacopeia (U.S.P. XIII). Table II lists their composition and proprietary names. The use of such trade names should be discouraged.

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TABLE I
SOURCES OF CARDIAC GLYCOSIDES

Source	*Natural Glycoside*	*Hydrolytic Glycoside*
Strophanthus gratus or Acocanthera ouabaio	Ouabain (g-Strophanthin)	
Strophanthus Kombe	Strophanthin (Strophanthin K)	
Digitalis lanata	Lanatoside A	Digitoxin
	Lanatoside B	Gitoxin
	Lanatoside C	Digoxin
Digitalis purpurea	Purpurea Glycoside A	Digitoxin
	Purpurea Glycoside B	Gitoxin
	Purpurea Glycoside C	Gitalin

STANDARDIZATION

Until pure digitalis fractions became available, biological assay and standardization was the accepted method of assuring uniform potency of preparations of the crude drug. The cat method of assay is well established, and is official in the U.S.P. So long as one prescribed only whole leaf digitalis preparations by the oral route the cat unit was found to be reliable, but with the advent of purified digitalis principles, considerable difference between

TABLE II
PREPARATIONS OF CARDIAC GLYCOSIDES

Glycoside	*Proprietary Name*	*Manufacturer*
Digitoxin, U.S.P.	Cardigin	National Drugs
	Crystodigin	Lilly
	Digisidin	Winthrop
	Digitaline Nativelle	Varick
	Digitoxin	Abbott
	"	Parke, Davis
	"	Schieffelin
	"	Squibb
	"	Stearns
	"	Upjohn
	Purodigin	Wyeth
Gitalin, N.N.R.	Gitalin (amorphous)	Rare Chemicals
Lanatoside C, U.S.P.	Cedilanid, N.N.R.	Sandoz
Digoxin, U.S.P.	Digoxin	Burroughs-Wellcome
Lanatoside A, B, & C (Mixture)	Digilanid, N.N.R.*	Sandoz
Ouabain, U.S.P.	Ouabain	Several
	Strophanthin-g**	"
	G-strophanthin**	"
Strophanthin, N.F.	Strophanthin, Kombe	Burroughs-Wellcome
	Strophanthin-K	Abbott

*Mixture: Lanatoside A, 46%; B, 17%; C, 37%.
**Not to be confused with strophanthin, N. F. (Strophanthin-K). This product is twice as potent as the official strophanthin.

cat units and the effective dosage in human beings was noted.

The answer to this is simple: the cat unit is an intravenous unit and does not distinguish between absorbable and nonabsorbable material. Neither does it take into account the rate of absorption from the gastrointestinal tract and the rate of disappearance from the body. It is obvious that a glycoside which is slowly absorbed and rapidly excreted will have less effect when given orally than when given intravenously. The relative potency of the preparations is indicated in Table IV.

ABSORPTION

The rate and degree of absorption of the various glycosides differ widely. At one extreme are ouabain and strophanthin, which are so poorly and so irregularly absorbed as to be entirely unsuitable for oral medications. Digitoxin, on the other hand, is so well absorbed that parenteral injection is rarely indicated. The degree of gastrointestinal absorption of the chief cardiac glycosides is presented in Table III.

ONSET OF ACTION

When given orally, the onset of action of the cardiac glycosides is largely a function of the speed of absorption. The literature contains very little accurate data by which we are able to rank the drugs according to the speed of action when oral administration is employed, but they show only minor differences in this respect.

When it is essential to digitalize a patient rapidly the intravenous route should be used, and on this procedure fairly accurate information is available. The approximate time of development of maximal electrocardiographic effect is listed in Table III. These figures represent the findings of different investigators, but are sufficiently exact to form the basis of therapeutic practice. It should be appreciated that the development of maximal cardiographic effect does not coincide with maximal therapeutic effect. Therapeutic effect begins before or about the same time as maximal cardiographic effect, but it continues to develop thereafter, and is partly determined by the condition of the patient.

It will be seen from Table III that the intravenous administration of ouabain or strophanthin produces an almost immediate cardiac response. Digoxin and lanatoside C are somewhat slower in action, and the effects of the other drugs are much delayed. Digitoxin, digilanid and whole leaf digitalis preparations develop their effects only slightly more rapidly on intravenous than on oral administration. The time required for fixation by the heart muscle (the latent period) is more important than the speed of absorption in determining the onset of action.

EXCRETION AND CUMULATIVE ACTION

It is significant that patients do not eliminate any definite amount of digitalis each day, but rather a diminishing percentage of the digitalis remaining in the body. The full digitalizing dose of whole leaf digitalis is eliminated in 10 to 15 days. The same is true of digitoxin, whereas lanatoside C and digoxin are excreted in two or three days. Ouabain and strophanthin are virtually completely eliminated in 24 hours.

These relationships can be visualized by comparing the daily maintenance dose with the intravenous digitalizing dose as shown in Table IV. The smaller the maintenance dose in relation to the digitalizing dose, the slower the excretion and the greater the cumulative effect.

DURATION OF ACTION

The approximate duration of the electrocardiographic effects is presented in Table III. The persistence of cardiographic changes does not agree with the duration of therapeutic effects. When compensation has been restored in a patient it may not be lost again for weeks, depending on the cardiac reserve and the load on the heart. After a single digitalizing dose of ouabain in a patient in moderately severe failure, compensation may be maintained for as long as five days. The drug is eliminated in 24 hours, but compensation continues, and this patient can tolerate another full dose at the end of the 24 hours without developing toxic symptoms.

Whole leaf digitalis, digitoxin and digilanid have

TABLE III
PHARMACOLOGIC PROPERTIES OF CARDIAC GLYCOSIDES

Preparation	*Onset of Maximal EKG-Effect**	*Duration of EKG Effect*	*Degree of Intestinal Absorption*
Digitalis purpurea	10 hrs.	over 72 hrs.	20%
Digitoxin	10 hrs.	over 72 hrs.	100%
Gitalin	8 hrs. (?)	72 hrs. (?)	50%
Digilanid	3 hrs.	72 hrs.	65%
Lanatoside C	1½ hrs.	24 hrs.	10% (irregular)
Digoxin	1 hr.	24 hrs.	80%
Ouabain	10 min.	8 hrs.	Poor
Strophanthin	10 min.	8 hrs.	Poor

All values are approximate.
*Intravenous administration.

the most sustained effects. Lanatoside C and digoxin are short-acting by comparison. Ouabin and strophanthin effects are so brief that they are practically non-cumulative.

CARDIAC EFFECTS

All members of this group of drugs act on the heart in two ways: (1) Traditionally they have been employed to depress the excito-conductor system: that is, to slow the pacemaker, and to decrease auriculo-ventricular conduction. These effects are largely vagal in origin. (2) More important is the myocardial effect of the drugs. The myocardial responses are attributed to the direct action of the drug on the muscular function of the failing heart causing increased contractility, tonus and irritability. This produces a shorter and more powerful systolic contraction, and permits a longer diastolic rest and filling period. Increased cardiac efficiency is the result. When the output is increased, the venous return is better accommodated and the venous pressure falls.

The different cardiac glycosides have qualitatively the same cardiac effects. Some authorities believe that the glycosides derived from digitalis are relatively more effective in depressing the excito-conductor system, and that ouabain and strophanthin excel in stimulating the myocardial contractility and tonus. Their contention may be correct, and there is clinical evidence that seems to support it. We shall reserve judgment on this point, because there is no careful experimental evidence of a definite difference between the glycosides in this respect. Conflicting reports possibly result from failure to use strictly comparable dosage.

TOXIC EFFECTS

All digitaloid glycosides are capable of causing nausea and vomiting by two mechanisms. (1) A cardiac reflex is initiated when an excessive amount of the drug is fixed by the myocardium. This occurs regardless of the route of administration of the drug, and can only be prevented by avoiding overdosage. (2) These glycosides cause local irritation in the gastrointestinal canal which may be sufficient to result in nausea and vomiting within a few minutes to an hour or two. In this case vomiting is usually expected after the administration of relatively large doses, and can be minimized by the use of a well absorbed drug, for if a poorly absorbed drug is given, larger dosage will be required to secure the therapeutic effect.

More important toxic effects are those of cardiac origin: excessive slowing and irregularities. The irregularities are especially significant for they indicate the development of toxic irritability of the myocardium. The first arrhythmia noted is usually the occurrence of ventricular premature systoles. These prematurities frequently appear at regular intervals so that a bigeminal or trigeminal rhythm results. If the overdosage is continued there is danger of ventricular fibrillation and arrest of the heart in diastole.

Many claims have been made for the relatively low toxicity of one or another of the cardiac glycosides. Clinical toxicity cannot be measured by determining the absolute toxic dose of the glycosides, but rather by ascertaining the therapeutic index. This is the ratio between the toxic and the therapeutic dose of the drug. Reports based on careful studies indicate that the therapeutic range of the various glycosides is the same, approximately two to one. In patients with poor cardiac reserve the margin of safety is smaller.

A word of caution is necessary in this connection: acute toxicity is partly determined by the speed of fixation of the glycoside in the myocardium. Since ouabain and stophanthin are rapidly fixed by the heart muscle, these drugs may, in toxic dose, cause fatal arrhythmias without warning. For this reason one must inject a dilute solution of the drug very slowly, and never in full therapeutic dosage if there is any chance that the patient has received a digitaloid drug within seven to ten days. When there is any doubt on this point, it is wise to employ only about one-sixth the therapeutic dose, and to repeat the injection at hourly intervals until the desired effect is secured.

Similar caution is necessary when any rapidly acting glycoside is used. Therefore intravenous digoxin and lanatoside C, although slightly safer in this respect, should be given with the same caution as ouabain. If toxicity is observed with these rapidly effective drugs, it is not so prolonged because these glycosides are also more rapidly excreted.

In order to understand the practical implications of the therapeutic index, it must be remembered that the margin between the minimum therapeutic and the minimum toxic dose is relatively wide in patients who are only moderately ill; it is smaller in patients with severe failure.

THERAPEUTIC APPLICATIONS

The cardiotonic glycosides are of primary value in the treatment of congestive heart failure, actual or potential, by virtue of their myocardial actions. They are also useful in the treatment of patients with rapid arrhythmias (auricular fibrillation, auricular flutter and paroxysmal auricular tachycardia) because of the depressing effect on the excito-conductor system. This action permits a slower and more efficient ventricular response, thereby decreasing myocardial fatigue.

The indications for the different glycosides are determined by their pharmacologic properties. When

rapid digitalization is essential, ouabain or strophanthin should be employed. Somewhat slower digitalization can be accomplished with digoxin or lanatoside C, so these drugs are valuable in patients where fairly rapid action is necessary but possible toxic effects must be minimized.

Digitoxin, on the other hand, is superior when slow digitalization is indicated, and for routine maintenance administration. Absorption of this drug is excellent and gastrointestinal irritation is imperceptible. The slow excretion prevents fluctuation of the amount of the glycoside action on the myocardium, but prolongs toxic reactions which sometimes occur.

There is some evidence that ouabain and strophanthin are superior to any digitalis glycoside when only the myocardial actions are required.

One more aspect of the problem requires consideration. The coronary constrictor effect of these drugs is not marked, and is insufficient to contraindicate their use in the face of decompensation, even in patients who have severe coronary disease. Much has been written about the dangers of using digitalis in the treatment of patients with coronary thrombosis. These dangers are said to be (1) cardiac rupture at the site of a fresh infarct and (2) the initiation of a fatal arrhythmia. The first danger seems to be remote indeed; the second can be controlled by the frequent administration of small doses of quinidine to prevent hyperirritability of the myocardium. By far the gravest danger is that the patient might die of acute heart failure resulting from omission of ouabain when he needs it.

A patient with a fresh infarct may survive because of prompt, cautious, administration of ouabain or strophanthin; or he may die as a result of the physician's timidity in withholding ouabain when the heart is rapidly failing.

The combined use of digitaloid glycosides is of particular importance when a patient has been given ouabain as an emergency measure. Ouabain and strophanthin have the advantage of a very short latent period, and the disadvantage (in some respects) of being rapidly excreted. The patient may be given one or many injections of ouabain, and then must be shifted to digitalis or one of its glycosides for maintenance. For this purpose he must receive more than the maintenance dose of digitalis, but he will not require the amount usually necessary for full digitalization.

Rather than discontinue ouabain at once under such circumstances, it is better to decrease it over a period of three or four days, during which time a digitalis glycoside is given in sufficient dosage to have the desired cumulative effect. This procedure should be conducted under careful observation, for no rule will give adequate approximation to the doses required.

In summary, ouabain or strophanthin are indicated for: 1. Acute heart failure. 2. Paroxysmal nocturnal dyspnea and acute pulmonary edema in patients with ventricular failure. 3. Chronic left ventricular failure with gallop rhythm or pulsus alternans.

Digitalis glycosides give better results in: 1. Congestive failure with pronounced tachycardia, especially auricular fibrillation. 2. Rheumatic heart disease and chronic valvular disease in young patients. 3. Maintenance dosage.

ADMINISTRATION

For routine use, the oral route of administration is preferable, but the condition of the patient and the charactertistics of the individual glycosides must be considered. As a general rule digitalis glycosides should be given by mouth, unless rapid effect is required or unless vomiting renders oral administration impractical. Ouabain and strophanthin should never be given by mouth; absorption of these drugs is wholly irregular and unsatisfactory.

When the digitalis glycosides are not tolerated by mouth, they may be given rectally. Absorption is satisfactory, and these drugs may be administered by this route in the customary oral dosage. Either the suppository or a microenema may be used. Tincture of digitalis in two to four ounces of warm milk is acceptable, and the pure glycosides can be given in the same manner. Such a retention enema is a less expensive and a more flexible dosage form than the suppository.

Intramuscular administration of digitalis glycosides is not advised because the irritating properties of the drug cause local tissue reaction and impede absorption. Ouabain, however, may be given in the muscle (never hypodermically); only a small amount of the drug is required, and the tissue reaction is proportionately decreased. When emergency digitalization is required, and the physician is in the patient's home with only limited equipment, it is best to give ouabain intramuscularly. The effect is comparable to that of a slow intravenous injection.

DOSAGE

Each patient is an individual problem regarding optimum digitalis dosage. In general, the more severe the failure, the larger the dose required. In Table IV the average single digitalizing dose (oral) is given. This will serve as a guide to the physician, but one should almost never administer a single digitalizing dose by mouth. This procedure is not a substitute for ouabain when rapid digitalization is indicated. It is desirable to spread the digitalizing dose over two or more days, and, for each day required in digitalization, to add the average daily maintenance dose (Table IV) to replace the drug excreted. This simplified dosage scheme may be

reduced to the following formula which is applicable to all digitaloids when given by mouth or by rectum:

$$x = \frac{d}{n} + m$$

When x equals the daily dose for digitalization, d equals the oral single digitalizing dose, m equals the daily maintenance dose, and n equals the number of days to be used in digitalizing the patient.

The intravenous digitalizing dose may be given by a single slow injection, or may be fractioned and given at short intervals. Only the rapidly effective glycosides should be given by vein in ordinary practice. Little time is saved by giving drugs intravenously that have a long latent period before the cardiotonic effects begin.

After digitalization has been produced, it is usually necessary to maintain the effect to prevent a return of decompensation. Table IV lists the average daily maintenance dose, but individual requirements may differ widely, and the appropriate dose must be determined for each patient.

The dosages given in Table IV are for an average adult (130-160 pounds). Children and small adults may be given a digitalizing dose consisting of about one unit for each ten pounds of body weight. Age and sex do not significantly affect digitalis requirements, and body weight is no longer regarded as an absolute standard for dosage calculation.

SUMMARY

The physician now has at his disposal many purified digitaloid principles which have an advantage over whole leaf digitalis because of their uniform potency. The various glycosides also have distinguishing pharmacologic properties which allow greater therapeutic flexibility.

No one glycoside is better than the others; it is only different. The differences in the glycosides must be well understood by the physician if he is to give his patient the best treatment that modern chemistry places at his disposal. At first it may seem that the subject is too complex for the average doctor to understand, but it can be simplified by using accepted names of the glycosides, and by adherence to a few fundamentals of pharmacology and therapeutics.

The general principles of the subject have been discussed, so that we may now summarize the particular cardiac glycosides and glycoside mixtures:

1. *Digitoxin* (U.S.P.) has a long latent period, and therefore is undesirable for intravenous medication. It is contraindicated when rapid digitalization is necessary. The drug is nearly 10 per cent absorbed when given by mouth. The long duration of action makes smaller maintenance doses possible. This may be an advantage in routine medication. However, toxic effects, when they occur, are more prolonged. For this reason the drug may be dangerous for a patient who requires a therapeutic dose approaching the toxic dose.

2. *Gitalin* (N.N.R.) has received less attention than the other glycosides, but it seems that the drug has a shorter latent period, and is somewhat less cumulative than digitoxin. Gitalin may prove to be better for routine slow digitalization than digitoxin, but it is certainly not indicated for rapid digitalization. More exact information must be available before this drug can be properly appraised.

3. *Digilanid* (N.N.R.) is a mixture of glycosides from *Digitalis lanata.* It has the advantage over whole leaf digitalis of being a mixture of constant proportions. Lanatosides A and B have long latent periods and are slowly excreted; lanatoside C has a short latent period and is rapidly dissipated. Because of this "balancing" effect the drug is a compromise, being partly rapidly acting and relatively non-cumulative and partly slowly acting and more cumulative. Although such a compromise drug may satisfy the requirements of the majority of patients, it would seem more logical to select a specific glycoside appropriate to the needs of the particular patient.

4. *Digoxin* (U.S.P.) is quickly effective, well absorbed, and rapidly dissipated. This drug may be given by mouth for initial digitalization and maintenance, or by vein for emergency medication. If toxic effects are encountered, they are of short dur-

TABLE IV
POTENCY AND DOSAGE OF CARDIAC GLYCOSIDES

Preparation	*Milligrams Equivalent to One Cat Unit**	*Intravenous Single Digitalizing Dose** (Mg.)*	*Oral Single Digitalizing Dose** (Mg.)*	*Daily Maintenance Dose** (Mg.)*
Digitalis	100	300-500	1500-2000	100-150
Digitoxin	0.4	1.2	1.2	0.1-0.2
Gitalin	0.25	2.25	5	0.25
Digilanid	0.3	1.5	6.25	0.3
Lanatoside C	0.25	1.6	6.25-10	0.5-1.25
Digoxin	0.2	1.0	1.5-2.5	0.5
Ouabain	0.1	0.25-0.375	Not used	0.25 (I.V.)
Stophanthin	0.2	0.5-0.75	Not used	0.5 (I.V.)

* One cat unit equals 0.8 U.S.P. digitalis unit.
** Dosage Figures are Averages.

ation because of the rapid excretion. This is a distinct advantage when the patient has a very low cardiac reserve and requires nearly toxic doses before favorable cardiac effects can be secured. On the other hand it may be a disadvantage, for routine cases, to have the concentration of the drug in the tissues subject to rapid variations.

5. *Lanatoside C* (U.S.P.) is similar to digoxin, except that it is not as well absorbed from the gastrointestinal tract.

6. *Ouabain* (U.S.P.) is never given by mouth; only intravenously, or intramuscularly. It is almost instantly effective, and is therefore the drug of choice for the emergency treatment of acute decompensation, acute pulmonary edema of cardiac origin (acute cardiac asthma), and selected cases of coronary thrombosis with decompensation. Ouabain is so rapidly excreted that it is virtually noncumulative. It is often used in combination with an orally administered digitaloid drug of long latent period, and which is slowly dissipated. Ouabain is of such importance that every physician should be familiar with its use. It belongs in every doctor's emergency kit.

7. *Strophanthin* (N.F.) is an amorphous mixture of glycosides, and is pharmacologically like ouabain except that it is just half as potent. It has the disadvantage of uncertain stability in ampules. The physician must be certain that the ampule labeled "Strophanthin" is the official strophanthin, not g-strophanthin which is the synonym for ouabain, as the ratio of potency is 1:2. Dangerous poisoning will result if g-strophanthin (ouabain) is given in the dosage intended for the official strophanthin. The exclusive use of ouabain in appropriate dosage will avoid confusion.

SELECTED REFERENCES

1. Batterman, R. C., and Engstrom, W. W.: Persistence of effect after digitalization by combined use of digitalis and ouabain. Am. Heart J. 24:458-471, Oct., 1942.
2. Batterman, R. C., Rose, O. A. and De Graff, A. C.: The combined use of ouabain and digitalis in the treatment of congestive heart failure. Am. Heart J. 20:443-453, Oct., 1940.
3. Brams, W. A., Golden, J. S., Sanders, A. and Kaplan, L. A.: Observations on toxicity and clinical value of strophanthin. Ann. Int. Med., 13:618-628, Oct., 1939.
4. Cattell, McK. and Gold, H.: Studies on Digitalis Glycosides III. The relationship between therapeutic and toxic potency. J. Pharmacol. and Exper. Therap. 71:114-125, Feb., 1941.
5. Chavez, I.: The comparative value of digitalis and ouabain in treatment of heart failure. Arch. Int. Med. 72:168-175, Aug., 1943.
6. Echna, L. W. and Taube, H.: The effect of intravenously administered digoxin and ouabain on the systematic venous pressure of patients with congestive heart failure. Am. Heart J. 27:641-656, May, 1944.
7. Gefter, W. I. and Leaman, W. G.: The use of ouabain in rapid cardiac arrhythmias. Am. J. Med. Sci. 205:190-197, Feb., 1943.
8. Ginsberg, A. M., Stoland, O. O. and Siler, K. A.: The effect of some members of the digitalis group on the coronary circulation. Am. Heart J. 16:663-674, Dec., 1938.
9. Gold, H. and Cattell, McK.: Mechanism of digital's action in abolishing heart failure. Arch. Int. Med. 65:263-278, Feb., 1940.
10. Gold, H., Cattell, McK., Modell, W., Kwit, N. T., and Kramer, M. L.: A comparison of the speed, the intensity and the duration of action of four digital's glycosides by intravenous injection in man. Federated Proceedings, 2:80, 1943.
11. Gold, H., Cattell, McK., Modell, W., Kwit, N. T., Kramer, M. I. and Zahm, W.: Clinical studies on digitoxin (Digitaline Nativelle) with further observations on its use in the single average full dose method of digitalization. J. Pharmacol. and Exper. Therap. 82:187-195, Oct., 1944.
12. Gold, H. and DeGraff, A. C.: Studies on digitalis in ambulatory cardiac patients; elimination of digitalis in man. J. Clin. Invest. 6:613-626, Feb., 1929.
13. Gold, H. and DeGraff, A. C.: Studies on digitalis in ambulatory cardiac patients; newer principles of digitalis dosage. J.A.M.A. 95:1237-1243, Oct. 25, 1930.
14. Gold, H., Hitzig, W., Gelfond, B. and Glassman, H.: Qualitative comparison of various digitalis bodies. Am. Heart J. 6:237-254, Nov., 1930.
15. Gold, H., Kwit, N. T., Cattell, McK. and Travell, J.: Studies on purified digitalis glycosides IV. The single dose method of digitalization. J.A.M.A. 119:928-932, July 18, 1942.
16. Katz, L. N., Wise, W., Ginsburg, H. A., Schiff, I., and Krause, F.: Oral single dose digitalization with digital's leaf and Digitaline Nativelle. Am. Heart J. 30:125-133, Aug., 1945.
17. Kwit, N. T., Gold, H. and Cattell, McK.: Studies on purified digitalis glycosides II. Potency and dosage of lanatoside C in man. J. Pharmacol. and Exper. Therap. 70:254-269, Nov., 1940.
18. LaDue, J. S.: Intravenous use of digitalis glycosides. South. Med. J. 36:124-133, Feb., 1943.
19. Rose, O. A., Batterman, R. C. and DeGraff, A. C.: Clinical studies on digoxin, a purified digitalis glycoside. Am. Heart J. 24:435-457, Oct., 1942.
20. Rykert, H. E. and Hepburn, J.: The use of strophanthin in the treatment of auricular fibrillation. Canad. Med. Assn. J. 34-281-283, Mar., 1936.
21. Stroud, W. D., Livingston, A. E., Brown, A. W., Vanderveer, J. B. and Griffith, G. C.: Use of verodigin in cardiovascular disease; its biological assay and pharmacological action. Ann. Int. Med., 8:710-726, Dec., 1934.
22. Tandowsky, R. M.: An electrocardiographic and clinical study of lanatoside C. Am. Heart J. 24:472-482, Oct., 1942.
23. Tandowsky, R. M. and Anderson, N.: An electrocardiographic and clinical study of various so-called cardiac drugs. Am. Heart J. 28:298-310, Sept., 1944.
24. Travell, J. and Gold, H.: Studies on the absorption of some digitalis preparations from the gastro-intestinal tract in man. J. Pharmacol. and Exper. Therap. 72:41, May, 1941.

MASS CHEST SURVEY AT THE UNIVERSITY OF KANSAS MEDICAL CENTER OUT PATIENT DISPENSARY

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It has been quite well established that it would be an ideal procedure for all patients entering a doctor's office, a hospital or clinic, for all employees of an industrial concern, and for all students entering a college or university, to be submitted to roentgenographic examination of the chest. Approximately 35 per cent of all general hospital or clinic admissions show chest disease[1], not necessarily active, on routine examination. This percentage of positive findings is higher than that of routine blood and urine examination. Routine radiographic examination of the chest on admission saves the patient and the hospital time and expense by early and rapid diagnosis.

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Tuberculosis survey work began in the clinic of the University of Kansas hospitals in the summer of 1945. At this time a photo-fluorographic unit was installed by the Kansas State Health Department. Since the pioneer work has been done by the Army and Navy and by many mobile units under control of the various state health departments, serving communities all over the nation, a description of the apparatus used will not be given. This description may be found in many pamphlets and texts[1]. The machine used in this survey is a standard Westinghouse photo-fluorographic unit of the 35 mm. film type. The films are taken by a state employed technician and are interpreted by a resident in the department of radiology under the direct supervision of the department head.

Following is the outline sheet used in making the report. The film interpretations were classified into four categories. The outline sheet is that recommended by the Kansas State Health Department.

Group A—POSITIVE FOR TUBERCULOSIS: Those in which there are definite shadows typical of tuberculous lesions. These cases will usually be confirmed on re-examination with the large films.

Group B—SUSPICIOUS FOR TUBERCULOSIS:

B_1—Those with basal and atypical mid-lung lesions not thought to be tuberculous, but in which tuberculosis is included in the differential diagnosis.

B_2—Those cases in which there are indefinite apical or other parenchymal shadows which are suspicious for tuberculosis. The majority of these cases are found to be entirely negative on examination with 14″ by 17″ films. However, in this group will be included the very early minimal lesions; therefore, it is highly important that all of these cases be examined with the large films.

"Over-reading" of the small films is practiced so as to miss fewer cases.

Group C—ABNORMAL: Those with significant abnormal non-tuberculous chest and cardiac conditions.

Group D—ESSENTIALLY NEGATIVE FOR TUBERCULOSIS: Includes the following:

Strictly negative chests—indicated by a check mark

Calcification indicated by number (2)

Old Pleurisy indicated by number (3)

Fibrosis indicated by number (4)

Anomalies and other non-significant pathology indicated by number (5)

Unsatisfactory film (poor positioning, developing, etc.) indicated by number (6)

The following is an example of the report card on which the report of the film reading is filed with the patient's clinic record.

K.U.H.—PF Survey Records Film No._____

Name _____

Age_____, Sex_____, Color_____,

Address _____

Cl. No._____ Cl. Ref._____

X-ray Fluorographic Findings

1.___Negative	13.___Cardiac	16.___Reser. Diag.
2.___Minimal	14.___Aortic	17.___Unsat.
3.___Mod. Adv.	15.___Other Path.	18.___Not Done
4.___Far Adv.		
5.___Pneumo.	****** Group A: Tbc. definite	**
6.___Thoraco.	******___Group B: Tbc.	
7.___Pleurisy	(indef. & susp.)	**
8.___Primary	******___Group C: Other path.	
9.___Fibrosis	(pos. & susp.)	**
10.___Calcification	******___Group D: Negative	**
11.___Susp. Tbc.	**___	**
12.___Pneumoconiosis	**	**

Remarks

A definite procedure was followed for recording the interpretation of the miniature film for the follow up examination if indicated. Report of pathology seen on the 35 mm. film was placed on the clinic record. If the patient's report was classified as A, B_1, B_2, he was referred to the x-ray department for a 14 x 17 film of the chest. This report was also placed on the clinic record. When the extent of pathology as seen on the 35 mm. film warranted further investigation for a process other than tuberculosis, the patient was classified as C and further fluoroscopic and possibly radiographic study was conducted. This examination often led to unsuspected non-tuberculous pathology. It is of interest to note that not all persons, even though in contact with adequate medical care, do avail themselves of medical attention. An outstanding example of this was that of a 31year-old woman who was working as a nurse's aid in our institution. She had been feeling rather badly but had not consulted a doctor. On routine photo fluoroscopic survey she was found to have moderately far advanced tuberculosis which was proven to be active. A film taken 18 months before was reviewed and was considered to be normal. The periodic survey picked up an individual who would have eventually presented herself for medical help, but who in the meantime would expose non-tuberculous patients and medical personnel to tuberculosis.

This report deals with 5,218 clinic patients who were examined by the photo fluorographic procedure from August 1, 1945, to August 1, 1946. Of these patients it was possible to get a follow up on 4,491 cases, 87 per cent. Of the 4,491 cases, 229 were diagnosed from the 35 mm. film as having definite significant pathology. The remainder were considered

to be within normal limits. Of the number we were able to follow, 53 or 1.18 per cent were found to have pulmonary tuberculosis (Class B_2). Of these cases 14 or 26.4 per cent of the cases diagnosed tuberculosis were classified as advanced tuberculosis (Class A). The 121 cases that were diagnosed as having lesions suspicious of tuberculosis were found on re-examination, using 14 x 17 films, to have essentially normal chests. It can be seen that from 160 cases that were diagnosed as being suspicious of tuberculosis on the 35 mm. film, only 39 or 24.3 per cent were found to have a chest lesion that was considered tuberculous by subsequent examination. This means that of the cases that were suspected of being tuberculous approximately 75 per cent were "over read." This percentage decreased materially as experience in the interpretation of the small film was developed. Eighteen patients were suspected of having tuberculosis but were later diagnosed other pathology by means of the larger film. A study of these 18 patients shows a value in routine chest examination other than inherent in a search for the tuberculosis patient. These 18 patients were ultimately diagnosed as follows:

Primary carcinoma of the lung	2 cases
Secondary lung carcinoma	3 cases
Spontaneous pneumothorax	1 case
Cardiac dilitation and decompensation	4 cases
Pneumoconiosis	1 case
Pneumonia	1 case
Lung fibrosis	4 cases
Lung abscess	1 case

The third classification of pathology is the C group or patients with abnormal chest and heart findings of a significant nature other than tuberculosis. The 37 cases in this group under suspicion were ultimately diagnosed as follows:

Relatively normal	12
Lymphoma	2
Minimal tuberculosis	4
Cardiac hypertrophy and decompensation	4
Primary lung tumor	2
Metastatic lung tumor	4
Aneurysm of the thoracic aorta	3
Broncho pneumonia	3
Hydrothorax	2

Fourteen cases who were diagnosed as having tuberculosis were followed through to a substantiation of the diagnosis with sputum examination. The greatest discrepancy in the diagnosis was in the Group B lesions, lesions suspicious for tuberculosis. No cases of basilar tuberculosis were diagnosed although 14 cases were so suggested from study of the small films. Seventy-five per cent of the cases thought to have a suspicious apical lesion did not have such a lesion when the 14 x 17 film was studied. Approximately 25 per cent positive findings were realized in this classification. Obviously the greatest number of cases fell in Group D. Approximately 4,200 cases were classified in this group.

Many of the earlier cases in which definite pathology was found, including those with tuberculosis, had little or no chest symptoms. It is for this reason that despite steady improvement in diagnostic facilities in the last 25 years, little substantial progress has been made in finding early cases of tuberculosis and other lung disease. This is due to the fact that early disease of the chest rarely gives rise to symptoms, and individuals who feel well seldom consult a physician. Reports from physicians' offices and clinics show that one-third of tuberculosis lesions found are classified as of some clinical significance. Approximately half of these will eventually be classified as arrested[2].

Our experience at the University of Kansas Medical Center shows that 76.4 per cent of the cases of pulmonary tuberculosis that were found by the 35 mm. photo fluorographic method were minimal. These were therefore amenable to adequate treatment. The experience of the United States Public Health Service is that less than 10 per cent of the minimal cases are missed with the miniature film and the advanced cases are picked up as accurately as with the large film[3]. Even though there is considerable "over reading" of the small film, it is thought by many authorities to be more adequate than an occasional reading with the large film.

From the epidemiological or public health point of view, only five per cent to 10 per cent of minimal cases picked up by the miniature film were previously known to have tuberculosis, and although the small film is admittedly less accurate it is possible to pick up 10 to 20 times as many cases of minimal tuberculosis than by any other commonly used method[3].

An effective program for stamping out tuberculosis should embrace four phases: 1. Case finding. 2. Medical care and isolation. 3. After care and rehabilitation. 4. Protection of the tuberculous family against economic distress. Case finding is naturally the first step. Diagnosis must be confirmed and proper treatment carried out until the disease has been arrested and the individual is back in productive employment. Until recently this has been centered on families of known tuberculous patients, thus missing many unsuspected cases. The second factor in case finding is a search for the disease without relationship to an infection focus. All segments of the population may be reached with an organized campaign, patients admitted to a general hospital, patients admitted to the hospital for the insane or mentally deficient, workers in industry,

students and faculty in elementary schools, high schools and universities.

Advantages attending the use of the 35 mm. film include the fact that accurate interpretation can be made and a large group of patients may be surveyed rapidly. At the University of Kansas Medical Center the relative number of cases that have passed through the chest survey is for the first year relatively small, but the figures derived from this study of 5,000 cases compare favorably with those given from other clinics in this country and abroad. At the University of Michigan where many more have been examined, pulmonary tuberculosis was found in about 1.5 per cent of cases and abnormal non-tuberculosis cases constituted 9.3 per cent of the cases examined[4]. Reports of statistics obtained from mobile units operating in Wales revealed 1.25 per cent abnormal non-tuberculous conditions and 1.1 per cent of definite pulmonary tuberculosis[5]. The mass survey carried on in New York City from 1933 to 1943 by the New York Public Health Department reported on over one-half million individuals examined[2] and revealed that tuberculosis was found in two per cent of cases but no figure was given for the non-tuberculous lesions. At the University of Kansas Medical Center pulmonary tuberculosis was diagnosed in 1.18 per cent of cases and other abnormal findings in four per cent of the cases.

SUMMARY AND CONCLUSIONS

1. 5,218 cases have been studied by photo fluorographic methods for pulmonary tuberculosis in the University of Kansas Medical Center out patient clinic. The expense of the project including the installation and operation of the machine has been assumed by the Kansas State Health Department. These cases were studied from August 1, 1945, to August 1, 1946. We were able to follow 4,491 of these cases. Of this number, 229 showed chest pathology. Fifty-three were diagnosed on subsequent examination with a 14 x 17 film as having pulmonary tuberculosis. Fourteen of them were moderately or far advanced and 39 had minimal lesions. "Over reading" of 35 mm. films was noted on 75 per cent of the cases studied. This has been considerably reduced with experience.

2. A method of classification and reporting these cases has been presented as suggested by the Kansas State Health Department.

3. The statistics obtained from the University of Kansas Medical Center study compare favorably with those obtained in other clinics here and abroad.

4. Many significant abnormal non-tuberculous chest findings were found. Four per cent of those examined had significant non-tuberculous chest lesions. In a large per cent of these cases the lesions were unsuspected and possibly might have gone unsuspected and untreated. It would seem that these cases found should lend added weight to the adequacy and necessity of routine photo-fluoroscopic examination of the chest.

5. Adequate isolation and treatment should be available in every state and community. The reward for such action will be measured not only in human life and happiness but in sound financial returns for money expended. Tuberculosis and non-tuberculous pathology frequently strike in the prime of life. Most of the victims are between 20 and 50. These are the years of greatest productivity and these individuals should be given every opportunity to lead productive, efficient lives, instead of being a liability to themselves, their families and their community. The photo fluorographic examination may become eventually a part of every physical examination and may rank with blood chemistry and serology as a routine diagnostic study. In the hands of trained personnel it is accurate in permitting a diagnosis of lung pathology even though the nature of the pathology will usually be obscure until a larger film is procured.

BIBLIOGRAPHY

1. Scatchard, G. N., Miniature Chest X-Ray Films in General Hospitals. J.A.M.A. 127:746-748. March 31, 1945.
2. Edwards, H. R. Place of Mass Survey in Tuberculosis Control Program. New York State J. Med. 269-273. Feb. 1, 1945.
3. Robins, A. B., Chest X-Ray Survey Methods in Practice Am. J. Pub. Health. 34:637-642. June, 1944.
4. Hodges, F. J. Fluorographic Examination of the Chest as a Routine Hospital Procedure. Radiology 38:453-461. April, 1942.
5. Davies, T. W., and Davies, M. Mass Radiography in Wales. Brit. J. Tbc. and Dis. of Chest. 39:23. January, 1945.

During the late war it was my privilege to see many patients who were receiving or had received atabrine therapy. By most, it was well tolerated, the only untoward sign being the yellow color imparted by the dye to the skin. By a few it was not tolerated, and it is of various manifestations produced by the drug in this latter group that we wish to speak.

Atabrine has been said to produce fewer toxic symptoms than quinine. With this we disagree. Vomiting occurred as frequently as it does in quinine therapy but was usually of shorter duration. Nausea lasted longer. Some patients complained bitterly of "nervousness," a symptom not common with quinine. . . .

The skin manifestations were interesting and variable. Urticaria and exfoliative dermatitis occurred, the former usually transitory.

More spectacular were those cases which resembled lichen planus and were so labeled by many dermatologists, though the atabrine source of these cases was early recognized.—Albert G. Bower, M.D., in California Medicine, October, 1946.

Preventive medicine requires the cooperation of the patient, and this in turn predicates the existence of a personal and confidential relationship between the physician, who served as health advisor, and the family.—*The Commonwealth Fund, 1947.*

Kansas Cancer Registry and Follow-Up Program

The Kansas State Board of Health with the cooperation of the Kansas Medical Society, the Kansas Division of the American Cancer Society and Kansas hospitals inaugurated on July 1, 1947, a statewide cancer registry and follow-up program. Thirty-five general hospitals are now participating in this program. Each hospital maintains a local registry and follow-up service which reports all cases of cancer to a central registry in the State Board of Health at Topeka. .

Hospitals report all cases receiving cancer care in any department of the hospital, including out-patients receiving diagnostic or treatment service.

Information reported by the local registry consists chiefly of basic statistical facts and an outline of the type of diagnostic treatment and follow-up service rendered to each patient.

Follow-up of cases is accomplished by the local hospital registry secretary according to the desires of each physician.

Approximately 2,500 cases of cancer were reported to the central registry during 1947.

The purpose of the registry and follow-up program is to provide facts for (1) determining the extent and nature of the cancer control problem, (2) determining the availability of present cancer diagnostic and treatment facilities and services, (3) evaluating results of the present program, (4) measuring the benefits derived from any new services which may be inaugurated, (5) assisting with the planning of a future program of cancer control.

At least eighty per cent of cancer patients are at some time registered for some diagnostic or treatment service with a hospital. Thus the program is centered in the agency where the facts about cancer are most likely to be readily available.

The registry and follow-up program is more than a reporting system. It focuses attention on each patient with cancer or suspected of having cancer and stimulates the physician and his professional co-workers to give cancer patients the best available diagnostic and treatment service. The program localizes the cancer problem in each community and stimulates local action. It is therefore an educational as well as a service program.

Hospitals are being paid to participate in the program, which provides a means of distributing appropriated and contributed funds throughout the state, and thus citizens in all parts of the state receive benefits.

Prepared by Committee on Control of Cancer.

PRESIDENT'S PAGE

There is a growing scientific knowledge that whole blood transfusions excel any other material in almost all of the instances where replacement is needed or deficiency exists. Because of this and the rapidly depleting plasma supply, there is all over the land a plan evolving where whole blood may be available. It requires only cooperation between the medical societies and the Red Cross and laboratory facilities.

The Red Cross has approved the plan for the whole United States subject only to local medical society approval or, in smaller centers, approval of the individual doctor or doctors. The plan, in brief, is for the Red Cross to keep a list of available serologically negative donors and transport them whenever and wherever needed. The donor makes this contribution to his fellow man without remuneration. There is a service charge for typing. Whatever charge the physician makes is for his services and is a matter between him and his patient, as it has always been.

In larger communities blood is drawn daily and the average need supplied; excess when outdated is processed into dried plasma. In smaller communities walking donors who can be called day or night furnish needed blood. An active Red Cross committee advertises and encourages this contribution.

Advantages:

1. To be able to give blood when and where needed.
   A. Burns
   B. Replacing blood loss as in obstetrics and surgery
   C. Severe depletion due to disease
2. Revealing blood dyscrasias and disease.
3. Finding Rh negative bloods for infant use.
4. It is intelligent for everyone to know his blood type. It is like knowing how to swim. One might never need to know, yet knowing might save a life.
5. ENCOURAGE FREER USE OF WHOLE BLOOD TO REPLACE THE RAPIDLY DECREASING STOCK OF DRIED PLASMA.

Such a plan has been prepared by a committee from the Society. Upon presentation to the Council, it was given full approval, and we understand that a similar outline on a national basis has been approved by the A.M.A. and the Red Cross.

L. L. Nelson

President.

EDITORIALS

American Academy of General Practice

On June 10, 1947, at Atlantic City the American Academy of General Practice was founded. The first annual meeting of this organization will have been held at Cleveland a few days before this issue of the Journal is received. At that meeting national headquarters will probably be selected, and according to rumors heard at present, Kansas City is being favorably considered. The selection of Kansas City would be of particular interest to the many physicians practicing general medicine in Kansas, as would the selection of Mr. Mac F. Cahal as executive secretary. Mr. Cahal, presently secretary of the American College of Radiology and prior to that executive secretary of the Sedgwick County Medical Society, is well known to many Kansas physicians. He is at present legal counsel and acting manager of the new organization and may or may not be a candidate for this position on a permanent basis.

The Kansas Medical Society recently received a statement from Stanley R. Truman, M.D., president of the American Academy of General Practice, in which he introduces the new organization to the physicians of the United States. His letter says in part that the Academy was founded "by a group of men firmly convinced that General Practice is the backbone of the finest medical system the world has ever known; and that General Practice is economically and medically the soundest means of distributing care to the American people. They believed that the fine things in General Practice could not be preserved and that medical science and art could not be advanced without the organized effort of the General Practitioners....

"The Academy has no official connection with the American Medical Association, except that members must be members of the American Medical Association. The Academy plans to support the A.M.A. in its high ideals and will also support every other group whose aims are unselfish and for the best interests of individual and public health....

"The requirements for membership are high but simple. For those older men who may not be able to fulfill the letter of the requirements, but have more than fulfilled them by years of experience and study, the Board of Directors by vote may waive any specific requirement. To be eligible for membership the physician must be engaged in General Practice. He must be duly licensed in the state in which he practices, and must be of high moral and professional character. He must have had at least one year of rotating internship at an approved hospital, or the equivalent in postgraduate training. He must have been in General Practice for at least three years. (Special consideration is being given by the Membership Committee to military service.) He must have shown interest in continuing his medical advancement by engaging in postgraduate educational activities....

"A feature of great interest to prospective members is the requirement that in each three-year period a member must complete 150 hours of postgraduate work. The Membership Committee has not yet published the accepted list of work fulfilling this requirement, but it is expected that the plan will follow the plan of allowing about one-third of the hours at staff meetings, one-third at conventions, and one-third at postgraduate courses....

"Since its inception the progress in organizing has been remarkable. After only three months the membership is larger than all but the two or three largest specialty groups, and the Academy is represented in forty-one of the states, and Hawaii.

"Every General Practitioner owes it to himself, and to the profession to which he has been called, to qualify for membership in the American Academy of General Practice; and when he has become a member, to do everything in his power to further its development and aims."

Postgraduate Fund Applications

The Journal has previously announced the postgraduate education fund created by the Kansas Medical Society to assist members returning from service in obtaining graduate education. This fund was raised entirely by voluntary donations and represents an expression of gratitude by the physicians of this state to the doctors who entered the service from Kansas.

By action of the House of Delegates, disbursement of this money is directed by the Committee on Postgraduate Education, now included as a subcommittee under the Committee on Medical Schools. This committee has worked diligently in an effort to distribute the fund on an equitable basis. While individual grants are not large enough to offer complete support to a physician taking graduate education, it is hoped that this supplement to other grants that are available to returned medical officers will aid in defraying expenses.

The committee is now of the opinion that this phase of the graduate program of Kansas should not continue indefinitely and has tentatively agreed upon the following regulations. It is urgently requested that every eligible physician take advantage of the benefits, but because a time limit must be placed somewhere, all applications should be on file prior to May 12, 1948. This does not mean that graduate work must be completed or even begun by that date.

It is merely intended that every eligible physician who wishes to receive this benefit and who expects to take graduate work should have placed his application with the medical society prior to May 12. The actual study need not begin until considerably later, but it is the plan of the committee that applications shall not be accepted after that time.

To be eligible a physician shall have served in the armed forces during the recent conflict and shall have graduated from a school of medicine not later than the spring of 1944 and shall have entered the armed forces as from Kansas. Benefits from the Kansas Medical Society fund have no bearing on other benefits that might be received, nor is the length of the course a limiting factor, except that a larger grant is generally offered in those instances where an extended course is taken.

More than 100 Kansas physicians have already received payment from the graduate fund, and it is hoped that many more will avail themselves of this opportunity. The regulations announced above are subject to approval by the House of Delegates and, after consideration by that body, might be altered. However, this committee feels that the House of Delegates should set a definite termination date, after which time it may be discharged of its duties, and in anticipation of such action begs to report its invitation for eligible physicians contemplating graduate work who as yet have not received a benefit from this program to file an application prior to May 12, 1948.

A New Year for the Journal

With this issue the Journal begins publication of Volume XLIX, and a glance over its activities during the past year seems appropriate.

From a commercial standpoint the Journal has progressed. Each issue now carries more advertisements than issues for corresponding months in other years, and there is a decided increase in the use of color in advertising pages. For this progress the Journal takes no credit, since advertising sales are largely handled by the Cooperative Medical Advertising Bureau, located in the A.M.A. offices in Chicago. The Bureau had a most successful year in 1947 with Mr. Alfred J. Jackson as director, and did splendid work in arranging advertisements for 33 state medical journals. Contracts now in force indicate thta the year 1948 will be equally successful.

Increased revenue from advertising has made possible a bigger and more creditable Journal for the Kansas Medical Society. Four scientific papers are now published in each issue, a page on cancer has been included through the cooperation of the Committee on Control of Cancer, and more editorial pages are provided. Although there is still a shortage of the enameled paper stock on which the Journal is printed, a large enough supply was purchased in 1947 to print a total of 816 pages, a number far larger than any previous total for a 12-months period.

The first annual University of Kansas School of Medicine number was published in the March issue of the Journal, and a scientific paper with four-color illustrations, an article on cancer diagnosis by Dr. Wendell A. Grosjean of Winfield, was printed in October. During the year the Journal published also a series of articles on state institutions to answer many questions from physicians who wanted information on commitments, releases, and eligibility requirements. Since July each issue of the Journal has included a section of abstracts of current medical literature. Other new features will be added from time to time.

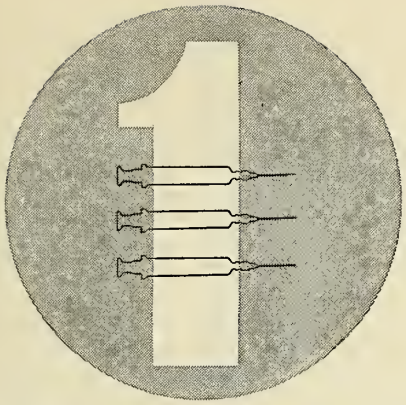
At a meeting of the Council of the Kansas Medical Society in May, two associate editors were appointed to the Editorial Board, Dr. C. A. Hellwig of Wichita and Dr. James B. Weaver of Kansas City. Both have been helpful in securing scientific material for the Journal, and Dr. Weaver has accepted responsibility for assembling copy for the second annual University of Kansas School of Medicine number, to be published in March, 1948. Other members of the Editorial Board, all of whom live in Topeka, have given freely of their time to attend Board meetings, read proofs, and make decisions on the problems that come up in the day-to-day operation of the Journal.

In addition to these, many members of the Society throughout the state cooperate to produce the Journal. One group has unfailingly provided copy for the abstract section, others submit scientific papers, county secretaries report their local meetings, and individual doctors often send in news items. Such help is gratefully received. It is the hope of the Editorial Board that the Journal will be the kind of publication the Society is proud to publish, and suggestions for making it a better journal in 1948 will be welcomed at any time.

Milk Consumption at High Level

More than 60 million quarts of fresh milk and cream are now being used daily by U. S. consumers, a larger amount than at any time before the war, according to new figures developed by the Milk Industry Foundation. Per-capita consumption is 16 per cent above the pre-war level, and milk and dairy products now comprise more than 25 per cent of all foods consumed by the average American.

Today, 57 billion quarts of milk are produced annually by 26 million cows on three-quarters of the nation's six million farms. Half of this supply is used as milk and cream and the other half for butter, cheese, ice cream and a myriad of other products.





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VETERANS ADMINISTRATION AGREEMENT

Veterans' Program Improved

A new agreement has been made between the Kansas Medical Society and the Veterans Administration. This became effective on December 28, 1947, and involves a number of changes in operational procedure. The Council of the Kansas Medical Society and various officials of the Veterans Administration agree that the revised program will operate more effectively in many ways. Most of the alterations refer to the office of the Medical Coordinator and the Executive Office of the Medical Society rather than the participating physician. Indirectly, each physician will notice an increased efficiency in operational procedure and therefore also will welcome the alterations.

A new fee schedule has been approved and adopted. This is a comprehensive outline listing approximately 700 separate services. In comparing the new schedule with that previously used, it will be noted that many of the items have been raised, some remain as they were, and a few have been reduced. Generally speaking, however, the more common procedures have been increased in value so that the physician will now be reimbursed at a rate generally considered equal to the average fee charged patients in private practice in this state. The old fee schedule, the pamphlet with the blue cover, is no longer in operation and should be discarded or destroyed. The new fee schedule will be mailed to each physician cooperating in this program as soon as copies are received from the V. A.

The Medical Coordinator in Topeka was, until now, under the jurisdiction of the regional office at Wichita. Technical difficulties arising from his attempt to serve also the Kansas City regional office have always caused confusion, which retarded efficiency even though everyone attempted to cooperate. Under the new agreement, the Medical Coordinator is directly under the supervision of the area office in St. Louis. The Medical Coordinator will remain in Topeka and will continue to serve physicians of Kansas as before. He will be the liaison officer between the members of the Medical Society and the two regional offices serving Kansas. As far as physicians are concerned, his services have not changed. Under the new program, however, his work can be expedited so that authorization will be made more quickly and more efficiently.

Examinations for pension purposes, as in the past, will be made by the regional office whenever possible. Those that the regional offices are unable to care for will be sent to approved examiners in rotation within a given locality, as in the past. In other words, the examiner will receive the authorization and the examination blank, together with a summary of the medical record, directly from the regional office. The regional office will notify the veteran of his appointment and will arrange his transportation. When the examination is completed, it should be returned NOT to the regional office but to the Medical Coordinator in Topeka where it will be reviewed and, if further information or corrections are needed, the examination will be returned to the physician by the Medical Society. When an examination is returned for correction, it should be sent again to the Medical Coordinator who will forward it to the appropriate regional office. Along with the examination, the bill for services rendered should also be submitted to the Medical Coordinator.

It has been stated repeatedly that the Veterans Administration does not question the examiner's medical judgment. Work for the Veterans Administration involves much more than medical care since a major responsibility in this work is classified as legal. It is the legal requirement that necessitates the return of numerous examinations for correction. The Medical Society wishes to emphasize that when examinations are returned, nothing therein should be construed as an attempt to alter the physician's medical judgment. This remains the examiner's individual responsibility. Sometimes diagnoses are requested to be given in more detail. At other times it is necessary to list findings that will support diagnoses, etc. It is always the legal portion of the examination that needs correction and not the physician's medical judgment.

Treatment outside a Veterans Administration hospital may be paid for by the Veterans Administration only if certain requirements have been met in advance. For instance, the disability must have been listed at the Veterans Administration as service connected unless the veteran is being educated under Public Law 16 (not to be confused with Public Law 346, the G. I. Bill of Rights) or, if a female, treatment may be authorized for any condition except pregnancy or syphilis. Office care or home calls for female veterans are governed by the same regulations as apply to male veterans. To the above brief statement there are a few exceptions but, generally, that outline will hold.

Other regulations governing treatment are that authorization for such treatment must be received prior to rendering the service. All authorizations should be obtained through the Medical Coordinator at Topeka. Address communications to E. H. Gibbons, M.D., Medical Coordinator, Medical Service Center, 215 West Tenth Street, Topeka, Kansas. In case of emergency the Medical Coordinator may accept collect long distance calls, No. 2-9319. If the Medical Coordinator cannot be reached and an immediate emergency exists, the physician should call the Chief Medical Officer of the nearest regional office for authorization. However, for the purpose of unifying the program, it is recommended that authorizations uniformly be applied for through the Medical Coordinator at Topeka.

At times the veteran will apply directly to the regional office for medical care and, if service cannot be granted there, the Chief Medical Officer may authorize treatment by an approved Kansas physician. This, however, will work only in emergencies after which the formal authorization will be received from the Medical Coordinator, as described above. All statements for services rendered should be sent to the Medical Coordinator.

In review, the new program will operate under the new fee schedule but except for that there is almost no change affecting physicians. When examinations are required, the physicians will be assigned in rotation. It will immediately be apparent to everyone that the patient should not select his own physician where an examination for compensation purposes is authorized. In all treatment cases the veteran will select the physician of his choice. Treatment authorized will be that determined by the physician except that eligibility must have been established by the veteran before the Veterans Administration will authorize payment. In order to be certain of this, authorizations should be obtained prior to the treatment. And, finally, to simplify procedures, the physicians of Kansas will now deal through one person in all matters pertaining to the program.

The Committee on Veterans Administration Affairs of the Kansas Medical Society will continue to function as before and will be glad to receive suggestions from members with reference to ways in which the program may be improved. If questions arise with reference to any phase of this program, the Executive Office will be glad to obtain information for any member upon request.

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COUNTY SOCIETIES

The Sedgwick County Medical Society held its regular meeting December 2 at the English room of the Broadview hotel, Wichita. Dr. Paul W. Shafer, of the University of Kansas School of Medicine, spoke on "The Surgical Treatment of Carcinoma of the Esophagus," and Dr. Edward H. Hashinger, also from the university, discussed "The Many Manifestations of Hypothyroidism—A Prevalent Disorder."

* * *

Members of the Shawnee County Society entertained the Auxiliary at a dinner meeting and program at the Hotel Jayhawk, Topeka, December 1. A short business session was held and the following officers were elected: president, Dr. Floyd C. Taggart; president-elect, Dr. Leo A. Smith; vice president, Dr. Orville R. Clark; secretary, Dr. Dwight Lawson; treasurer, Dr. George F. Helwig. Dr. Orville R. Clark will continue to edit the county society's bulletin.

* * *

A dinner meeting of the Marion County Society was held at the Green Parrot, Marion, December 10. Dr. C. R. Magee, Marion, discussed "Chemotherapy of Tuberculosis," and Dr. Eldon S. Rich, Goessel, gave abstracts of papers presented at the last meeting of the Kansas City Southwest Clinical Society.

* * *

The Lyon County Society met December 2 at Newman hospital, Emporia. The following officers were elected: president, Dr. C. H. Munger; vice president, Dr. E. J. Ryan; secretary-treasurer, Dr. F. W. Foncannon; board of censors, Dr. C. C. Underwood, Dr. Rodger A. Moon and Dr. Clyde Wilson.

* * *

Members of the Franklin County Society entertained members of the county dental society at a dinner meeting at the Ottawa country club November 25. Dr. Sloan Wilson, Kansas City, discussed hemorrhagic diseases.

* * *

A meeting of the doctors in the counties comprising the first district of the Kansas Medical Society was held at the Sabetha country club November 20. Dr. R. T. Nichols, councilor, presided and welcomed the guests, members of the Auxiliary. Mrs. M. A. Brawley, Frankfort, reported on activities at the A.M.A. convention in Atlantic City, and Dr. Conrad M. Barnes, Seneca, chairman of the Committee on Rural Health, spoke on methods of improving rural health and means of encouraging doctors to practice in rural areas. Recognition was given Dr. S. M. Myers, Corning, who has completed 52 years of medical practice.

* * *

The Mitchell County Society met at the Community hospital, Beloit, November 18, for afternoon and evening sessions. Scientific papers were presented by guests from the University of Kansas School of Medicine. Dr. Edward H. Hashinger spoke on "The Use of Antibiotics" and "Evaluation of Some Newer Therapeutic Procedures," and Dr. Mahlon H. Delp discussed "When Is the Heart Case Ready for Surgery" and "Virus Hepatitis." Twenty-five doctors were present for the program and dinner meeting.

* * *

Dr. David T. Loy was elected president of the Barton County Society at a meeting held at the Zarah hotel, Great Bend, December 8. Dr. James Gaume, Ellinwood, was named vice president, and Dr. Robert Polson was named secretary. Dr. L. R. McGill was re-elected delegate to the annual meeting of the Kansas Medical Society.

* * *

The Brown County Society held a dinner meeting at Camp Rulo December 5 and elected the following officers for 1948: president, Dr. Ray Meidinger, Hiawatha; vice president, Dr. Alfred Dietrich, Horton; secretary-treasurer, Dr. R. T. Nichols, Hiawatha.

* * *

The following officers for 1948 were elected at a meeting of the McPherson County Society held December 11: president, Dr. Robert Watterson, McPherson; vice president, Dr. M. C. Murfitt, Lindsborg; secretary, Dr. A. M. Lohrentz, McPherson; treasurer, Dr. Delbert Preheim, Moundridge.

* * *

The Finney County Society invited the public to a meeting held December 12 at the Warren hotel, Garden City. Dr. F. C. Beelman, secretary of the Kansas State Board of Health, spoke on "Public Health in Action in Kansas."

* * *

Dr. John W. Hertzler, Newton, was elected president of the Harvey County Society at a meeting held in December. Dr. C. R. Schmidt, Halstead, will serve as vice president and Dr. Robert W. Myers, Newton, will be secretary-treasurer. The program for the December meeting consisted of a paper, "Peptic Ulcer," by Dr. G. A. Westfall and a paper, "Fitting and Indications for Contest Lenses," by Dr. Harold E. Morgan.

* * *

Members of the Marshall County Society entertained the Auxiliary at a dinner meeting at the Marysville country club December 17. Mr. Robert Galloway spoke on Communism, after which there was a short business meeting. Dr. W. J. Stewart was re-elected president, and Dr. H. H. Haerle was named secretary-treasurer. Delegates to the state meeting are Dr. M. A. Brawley and Dr. R. I. Thacher.

* * *

The Clay County Society was host to the Golden Belt Medical Society at the Clay Center country club January 8. A scientific program was given in the afternoon, followed by a dinner meeting. The papers presented were as follows: "Convulsive Seizures," Dr. D. B. Foster, Topeka; "Radiological Diagnosis of Intestinal Tract Lesions," Dr. C. E. Virden, Kansas City, Missouri; "Cytological Diagnosis for Malignancy," Dr. Russell W. Kerr, Kansas City, Missouri; "Feeding Problems in Infancy and Childhood," Dr. Herbert C. Miller, Kansas City.

* * *

The Wilson County Society entertained the Auxiliary and nurses of the Wilson county hospital at a dinner at the Blue Tea Room, Neodesha, December 18. A film showing how energy is released from food was shown through the courtesy of the Upjohn company.

Cancer Series to Continue

A popular feature in the Journal during the year 1947, a series of short articles on cancer, will be continued this year through the efforts of the Society's Committee on Control of Cancer. The articles will be found in each issue immediately following the scientific section.

Physicians found many diagnostic aids in the articles and welcomed their appearance in the Journal. The Editorial Board is happy to announce that the committee, under the chairmanship of Dr. Howard E. Snyder of Winfield, will continue to make the articles available in 1948.

Dorsey

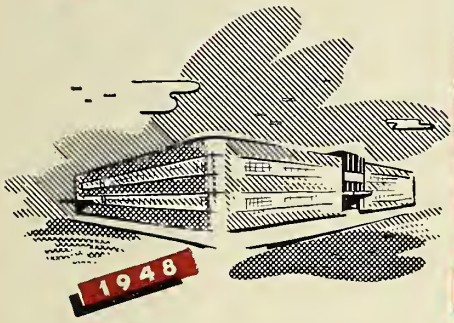
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BRANCHES AT LOS ANGELES AND DALLAS

MEMBERS

Dr. Irene Koeneke and Dr. Cora Dyck of the Hertzler clinic, Halstead, and Dr. Frances H. Schiltz, Wichita, have returned from Mexico City where they attended a meeting of the Pan American Medical Association.

* * *

Dr. William B. Scimeca, Moline, announces that his father, Dr. S. Albert Scimeca, is now associated with him in practice and in the operation of the Scimeca hospital in Caney.

* * *

Dr. Fred Mayes, who has been serving as assistant state health officer, has been named director of public health for the city of Wichita. He will assume his new duties next June when he completes work on a master's degree in public health, for which he is now studying at Harvard.

* * *

Dr. Richard S. McKee, Leavenworth, was elected to the board of directors of the American Society of Anesthesiologists at a meeting held in New York City in December.

* * *

Dr. David E. Gray, who has been a resident in obstetrics and gynecology at the University of Iowa hospitals since his release from the Army medical corps, has returned to Topeka and is practicing in association with Dr. Lucien R. Pyle.

* * *

Dr. M. W. Wells, who has been practicing in LeRoy, has moved to Winfield and is preparing to open an office there.

* * *

Dr. A. J. Brier, who recently returned to Kansas after serving on the staff of veterans' hospital at Hot Springs, South Dakota, has been named head of the Security Benefit Association clinic, Topeka.

* * *

Dr. John S. Betz, who has been associated with Dr. John A. Billingsley, director of the department of ophthalmology at the University of Kansas Medical Center, for the past eight years, has opened an office for private practice in Kansas City.

* * *

Dr. E. W. Tallman, Gaylord, celebrated his 42nd anniversary in the practice of medicine there on October 27.

* * *

Dr. R. R. Clutz, Bendena, has been named health officer of Doniphan county to fill the vacancy caused by the death of Dr. G. W. Benitz.

* * *

Dr. D. R. Wilson, formerly of Mound Valley, is now associated with the Veterans Administration in Wichita.

* * *

Dr. Wendell A. Grosjean, Winfield, has become a diplomate of the American Board of Surgery.

* * *

Dr. Austin J. Adams, who has been associated with Winter General Hospital, Topeka, for the past two years, has returned to Wichita and is with the Veterans Hospital there.

Conference on Cancer

On February 23 and 24 a special conference on cancer will be held at Topeka. This will be divided into two sessions, one appealing primarily to lay persons and the other to physicians. Attending will be representatives of the Field Army from each county in Kansas and the medical director of each county. Besides those, all Kansas physicians are invited to attend. Welcome also will be physicians from neighboring states.

The scientific program has been arranged through the cooperation of the Committee on Control of Cancer of the Kansas Medical Society and the Kansas Division of the American Cancer Society. Details are not completed at present and may be changed slightly when the final program is issued. At present the committee expects to present to the physicians attending this meeting E. W. Bertner, M.D., Houston, Texas; Charles S. Cameron, M.D., medical director, American Cancer Society; Alton Ochsner, M.D., New Orleans; C. P. Rhoads, M.D., Memorial Hospital, New York.

The meeting has been cleared with the Topeka Chamber of Commerce and has been announced to both the Jayhawk and the Kansan hotels of Topeka so that room reservations for this meeting should be relatively easy to obtain. It is recommended that reservations be applied for early. If any difficulty is experienced, those planning to attend are asked to inquire further of either the Kansas Division of the American Cancer Society or the Kansas Medical Society.

Fifty Year Club

Indiana physicians who have practiced medicine for 50 years or more are members of the newly organized "Fifty Year Club" of the Indiana State Medical Association. Certificates of distinction and gold lapel pins were presented 175 members of the club recently, and other physicians will become members as they reach their fiftieth milestone of medical practice.

Professional Relations

Fundamental to good professional relations among members of state or local medical societies is a good feeling and understanding among individual physicians, reports the Council on Medical Service of the A.M.A. in its News Letter. Seven deadly sins to be avoided are listed as inertia, reaction, cliques, discord, provincialism, smugness and defeatism. The seven characteristics to offset the vices are enterprise, progress, friendship, harmony, vision, leadership and courage.

DEATH NOTICES

FRED CLIFFORD CAVE, M.D.

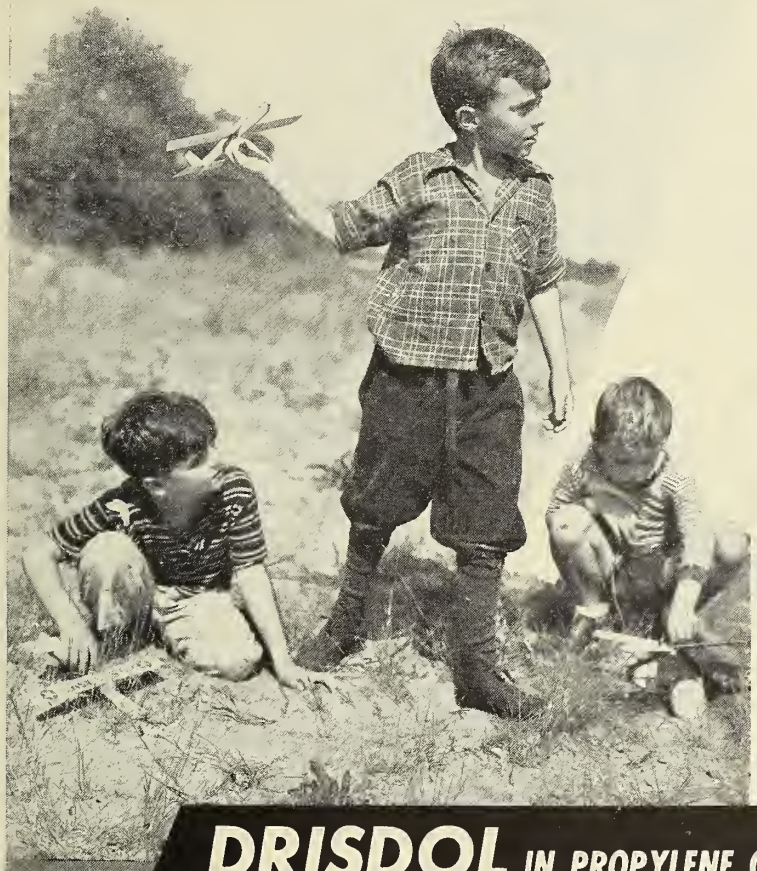
Dr. Fred C. Cave, 71, who had practiced in Oxford for 20 years, died in Chicago December 12 after an illness of four months. He was graduated from Barnes Medical College in St. Louis in 1903. He served as superintendent of the state training school in Winfield in 1916 and 1917, leaving to serve with the medical corps during World War I. He was a member of the Sumner County Society.

* * *

ANTHONY WAYNE FAIRCHILD, M.D.

Dr. A. W. Fairchild, 69, died at his home in Osawatomie December 15 after a short illness. He was an active member of the Miami County Medical Society. A graduate of the Medical Department of the National University of Arts and Sciences, St. Louis, in 1913, Dr. Fairchild practiced first in St. Louis and then in Fall River. He opened an office in Osawatomie in 1921, confining his practice to ophthalmology, and had practiced there since that time.

Why do Tom, Dick and Harry need Vitamin D ?



Growing children require vitamin D mainly to prevent rickets. They also need vitamin D, though to a lesser degree, to insure optimal development of muscles and other soft tissues containing considerable amounts of phosphorus.

Milk is the logical menstruum for administering vitamin D to growing children, as well as to infants, pregnant women and lactating mothers. This suggests the use of Drisdol in Propylene Glycol, which diffuses uniformly in milk, fruit juices and other fluids.

Average daily dose for infants 2 drops, for children and adults 4 to 6 drops, in milk.
Bottles of 5, 10 and 50 cc.

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New Doctors of Medicine

Twenty-nine doctors of medicine have been licensed to practice in Kansas by the Kansas State Board of Medical Registration and Examination, five by examination and 24 by reciprocity. The names of the 29 are as follows:

By examination

Arthur H. Bacon, Wichita
David A. Lasley, Goodland
David A. Laury, Garnett
Edward A. Stapleton, Jr., Topeka
Edward C. Tilka, East Chicago, Indiana

By reciprocity

Francis Anderson, Anthony
James A. Atkins, Pittsburg
Porter E. Barbero, Independence
Norton H. Bare, Osawatomie
Donald D. Bauer, Topeka
Ernest C. Brandsted, McPherson
Clarence P. Bringle, Enterprise
Peter T. Brooks, Winfield
Ben H. Buck, Jr., Wichita
Herbert L. Bunker, Jr., Junction City
William P. Callahan, Jr., Wichita
Robert S. Darrow, Mission
Charles R. Dickinson, Coffeyville
Carl M. Epstein, Topeka
Maurice E. Gross, Lawrence
Edward T. Haslam, Chelsea, Massachusetts
Thomas L. Hill, Topeka
Warford B. Johnson, Detroit, Michigan
James T. Makinson, La Crosse
Albert Owers, Topeka
William F. Roth, Jr., Kansas City
Thomas C. Todd, Arkansas City
David R. Wall, Wichita
Richard H. Weddle, Somerset, Kentucky

Examination in Obstetrics and Gynecology

The next written examination and review of case histories (Part I) for candidates for the American Board of Obstetrics and Gynecology, Inc., will be held in various cities of the United States and Canada on Friday, February 6, 1948. Arrangements will be made for candidates to take the Part I examination at places convenient for them, whenever possible.

Candidates who successfully complete Part I, proceed automatically to the Part II examination to be given May 16-22, 1948, in Washington, D. C.

Complete information may be secured from Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh, Pennsylvania.

Unifying Pharmacopoeias

A committee of experts named to study unification of Pharmacopoeias of the nations included in the World Health Organization held a meeting in Geneva in October and placed 244 items on its primary list of medicinal substances. These, they believe, are of sufficient importance for inclusion in a book of "Standards Recommended for Adoption by the Pharmacopoeias of the World." The primary list will be submitted to authoritative medical groups in a number of countries for review.

A secondary list of 89 drugs was drawn up, and 201 items that were studied were dropped from further consideration on the ground that they have become obsolete and find little use in modern medical practice.

The committee completed the first drafts of 72 monographs of the drugs selected for the primary list, and will prepare monographs on all items as soon as possible. These suggested texts will also be submitted for review by international experts in pharmacopoeial revision.

It is expected that the membership of the committee will be increased by next summer, when another meeting will be held, so that additional countries will be represented. The committee member representing this country is Professor E. Fullerton Cook, chairman of the Committee of Revision of the United States Pharmacopoeia.

Rural Health Conference Planned

The third annual National Conference on Rural Health will be held in Chicago, February 6 and 7, 1948, under the sponsorship of the Committee on Rural Medical Service of the A.M.A., the American Academy of Pediatrics, and representative farm organizations. Forty speakers will take part in the two-day session, including four farm youths representing the National Farmers Union, the American Farm Bureau Federation, the National Grange and the National Cooperative Milk Producers Federation, who will discuss "Rural Youth Looks at Health."

Parke-Davis Medical Consultant

Announcement that Dr. J. P. Gray has joined the staff of Parke, Davis and Company in the capacity of medical consultant to the sales and promotion division has been made by Harry J. Loynd, vice president of the company.

Dr. Gray has held many public health posts over the country and has served as dean of the School of Medicine of the Medical College of Virginia and as dean of the School of Medicine of the University of Oklahoma.

Mississippi Valley Society to Meet

The 13th annual meeting of the Mississippi Valley Medical Society will be held at Springfield, Illinois, September 29 and 30 and October 1, 1948, under the presidency of Dr. W. O. Thompson, professor of medicine, University of Illinois. The society now has a membership of nearly 1,000, and is continuing its campaign for life memberships.

Medical Essay Contest

The eighth annual essay contest of the Mississippi Valley Medical Society will be held in 1948, with a cash prize of $100, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest and practical value to the general practitioner of medicine. Contestants, who must be members of the American Medical Association residing in the United States, should submit five copies of each essay, not exceeding 5,000 words in length, before May 1, 1948.

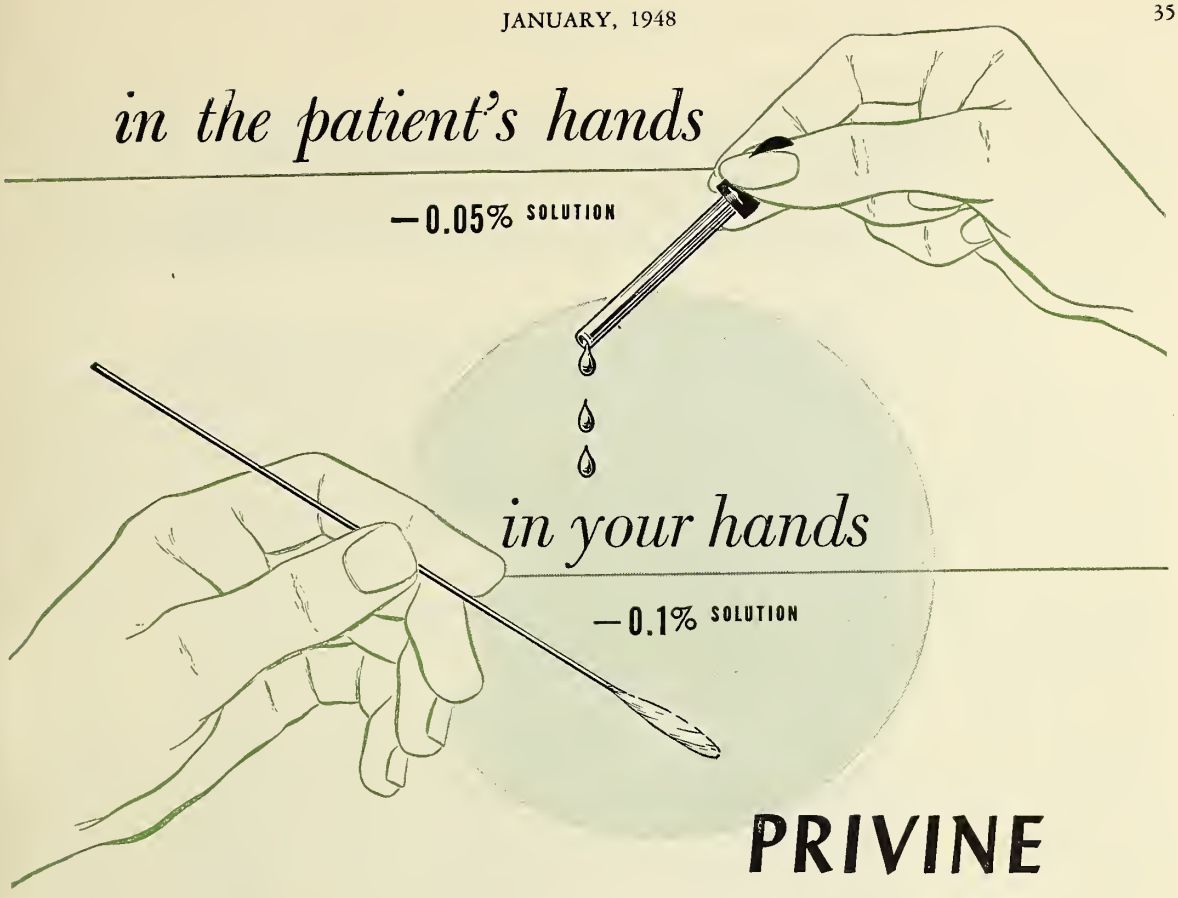
Complete information on the contest may be secured from Dr. Harold Swanberg, secretary, 209 W.C.U. Building, Quincy, Illinois.

Woman Elected President

Dr. Leslie S. Kent of Eugene, Oregon, is president elect of the Oregon State Medical Society, and is believed to be the first woman elected to such an office.

Fellowships in Tuberculosis Study

The National Jewish Hospital at Denver has announced a program of fellowships for postgraduate study in tuberculosis and allied diseases. Fellows will be appointed for periods of three months, six months or one year. Information may be secured from Dr. Edgar Mayer, Chairman, National Medical Board, 470 Park Avenue, New York.



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This Week in Chicago Medicine

A weekly publication, "This Week in Chicago Medicine," has been inaugurated by the Chicago Medical Society to keep the profession posted on events of interest, clinics, conferences and meetings. Copies are being mailed to all medical libraries, medical schools and city medical societies. Doctors who plan to be in Chicago and are interested in securing copies may do so by writing the Chicago Medical Society, 30 North Michigan Avenue, Chicago 2, Illinois.

Medical Officers Needed

Medical officers for the National Guard and the Organized Reserve Corps in Kansas are needed now, according to a report issued recently by Major Ira D. S. Kelly, public information officer, Topeka. The Department of the Army has authorized the assignment of medical officers, and applications may be made at any time.

The National Guard needs in Kansas at present are as follows: Topeka, one major; Hiawatha, one captain; Ottawa, one captain; Wichita, one captain; Hutchinson, one major and one captain; Dodge City, one captain; Hays, two captains; St. Marys, one captain; Iola, one major; Fort Scott, one captain; Coffeyville, one captain. Applications may be made to the local commanding officer or to the Adjutant General, State of Kansas.

Needs of the Organized Reserve Corps are listed as follows: Wichita, five majors and four captains; Iola, one captain; Salina, one captain. Former officers of the medical corps of any of the armed services who are not over 60 years of age may apply. Also eligible are former warrant officers, flight officers or enlisted men of the first three grades who have been in active service for six months or more between December 7, 1941, and June 30, 1947, and are not more than 28 years of age. The third group eligible for assignment includes persons lacking prior military service but who possess professional qualifications essential to the Army and whose age is between 21 and 32 years. Each applicant must possess a license to practice medicine in a state, district or territory of the United States or a diploma from the National Board of Medical Examiners, and must be engaged in the ethical practice of medicine, with the exception of graduates who present evidence of completion of a prescribed four-year course of medical instruction at an approved school requiring a hospital internship.

Complete information on openings now available to medical officers may be secured from Major Kelly, Kansas State Senior Instructor Organized Reserves, 117 East Seventh Street, Topeka, Kansas.

Schering Announces Triple Sulfonamide

A new step in the recently discovered principle of safer sulfonamide therapy has been announced by Schering Corporation, in the form of a new type of sulfa treatment. Based upon original work by New York Medical College's Dr. David Lehr, carried out under Schering grant, the preparation consists of three sulfonamides—sulfadiazine, sulfathiazole and sulfamerazine—incorporated into a tablet or into a liquid suspension, in equal parts. As Combisul and Combisul Liquid, respectively, each 0.5 Gm. tablet, or teaspoonful containing a total of 0.5 Gm., is to be used in any indication for which single sulfonamides formerly had been used.

Dr. Lehr found that the concentration or solubility of one sulfonamide in a solution does not affect and is not affected by the amount of another sulfonamide in the same solution. This principle has been carried through and has been found to hold true if there are three sulfonamides present. Thus, only one-third the usual whole dosage of each sulfonamide need be given to obtain a potentiated therapeutic effect. The probability of crystalluria now is also extremely remote. Combination of sulfonamides has proven more effective, in shorter periods of time, with smaller dosage.

Winthrop-Stearns, Inc., Formed

Formation of Winthrop-Stearns, Inc., as a new subsidiary to integrate its major pharmaceutical interests has been announced by the parent company, Sterling Drug, Inc. The new company will conduct the business formerly carried on by Winthrop Chemical Company, Inc., organized by Sterling in 1919, and the pharmaceutical operations of the Frederick Stearns and Company Division, Detroit. Dr. Theodore G. Klumpp has been elected president of the new subsidiary.

Consolidation of the sales staffs of the two units has already been effected and transfer of other business functions was completed November 1.

Heart Clinic in Topeka

More than 100 Kansas doctors were in Topeka December 11 to attend a heart clinic at Winter Veterans Administration hospital, sponsored by the Committee on the Study of Heart Disease of the Kansas Medical Society, Kansas membership of the American College of Physicians, and the Winter hospital staff. Dr. Philip W. Morgan, Emporia, president of the Kansas Heart Association and chairman of the Committee on the Study of Heart Disease, directed the day's program.

Texas Secretary-Editor Dies

Dr. Holman Taylor, 73, executive secretary of the Texas Medical Association and editor of the Texas State Journal of Medicine, died December 4 at the conclusion of a dinner given in his honor by the Tarrant County Medical Society, of which he had been a member since 1910. Death was attributed to coronary occlusion. Speakers at the banquet that evening had named Dr. Taylor as the physician who had contributed most to organized medicine in the state of Texas.

ANNOUNCEMENTS

February 6-7—Third Annual National Conference on Rural Health, under auspices of Committee on Rural Medical Service, A.M.A., Chicago.

February 6-7—Midwest Radiologic Conference, Hotel Schroeder, Milwaukee, Wisconsin. Address inquiries to Dr. A. Melamed, Milwaukee Roentgen Ray Society, 425 East Wisconsin Avenue, Milwaukee 2, Wisconsin.

February 8—Annual Conference of Teachers of Radiology, Chicago.

March 2-5—Chicago Clinical Conference, under auspices of Chicago Medical Society, Palmer House, Chicago.

April 19-23, 1948—Twenty-ninth annual session, American College of Physicians, Civic Auditorium, San Francisco, California.

May 6-8, 1948—Annual Meeting, American Association for the Study of Goiter, King Edward Hotel, Toronto, Canada.

MAY 10-13—ANNUAL MEETING, KANSAS MEDICAL SOCIETY, WICHITA, KANSAS.

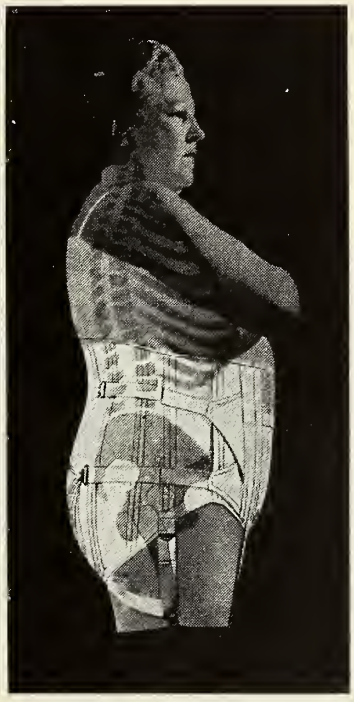
September 29-October 1—13th Annual Meeting, Mississippi Valley Medical Society, Springfield, Illinois.

EXCELLENT SUPPORT for the

PENDULOUS ABDOMEN



Patient with pendulous abdomen (skeleton indrawn).



Same patient after application of support (skeleton indrawn).

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Clinicians are calling attention to the ill effects of the pendulous abdomen more frequently than formerly.

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S. H. Camp & Company, recognizing this proportionate irregularity and the frequency of its occurrence, has made supports for many years for these obese persons and for those in whom the obesity is largely confined to the abdomen.

Camp surgical fitters are taught to fit patients with pendulous abdomen in the reclining position; thus the intestines are redistributed to the sides and back of the abdomen and the support will hold them there.

The Camp Support illustrated is especially efficient in holding the viscera in their redistributed position by reason of the support given to the pelvis.

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ABSTRACTS

Thyrotoxicosis

Barfred, Arne. Methylthiouracil in the Treatment of Thyrotoxicosis. Am. Jnl. Med. Sc., 214-4:349-362 (October) 1947.

The author working in The City and County Hospital, Odense, Denmark, reports his experiences with methylthiouracil in thyrotoxicosis since 1944, says work in England was carried on at the same time but due to the war without knowledge of the Danish experiments. His own series of 61 cases is discussed along with a review of the literature. Methylthiouracil was given in daily doses that averaged 1.2 grams to a group of patients and reactions were frequent (78%) and some severe. A larger group of patients received average initial daily doses of 0.57 grams with therapeutic results comparable with other reports on methylthiouracil and incidence of reaction was less (47%). He believes .4 gram day should be the maximum daily dose. Some patients are resistant to methylthiouracil (four of the author's cases, six reported by Rose and 14 from various other writers). Methylthouracil has no advantages clinically over propylthiouracil and the dosage of both, he believes, should be about the same. A positive urobilin test is considered evidence of toxicity and the test is advocated as a check. Methylthiouracil is a potent antithyroid drug.

Indications for antithyroid drugs: (1) Cases too great a surgical risk. (2) Cases in which operation is refused. (3) Relapse after thyroidectomy. (4) Preoperative treatment (Methylthiouracil with iodine for 10 days preoperatively seems to lower the post operative risk of thyrotoxic crisis). (5) Those cases in whom one can expect a cure.

"Cures" range from 20 to 82 per cent in reported series. The best prognosis is in patients in whom the disease was not long standing, the goitre small, and the patient in the younger age group. Maintenance therapy should not exceed one to one and a half years and at all times the danger of agranulocytosis must be kept in mind and frequently checked for.

Contraindications to antithyroid drugs: (1) Large intrathoracic goitres; (2) Large adenomatous or diffuse goitre which is rapidly increasing; (3) In non-cooperative patients in whom control is difficult; (4) Thyrotoxicosis due to acromegaly; (5) Thyrotoxicosis in pregnancy (and though this is unsettled, it is known thiouracil passes the placental barrier and is found in the milk).—*P.W.M.*

* * *

Peritoneal Irrigation

Muirhead, E. E.; Small, A. B.; Haley, A. E.; Hill, J. M. Peritoneal Irrigation for Acute Renal Damage following Incompatible Blood Transfusion: A Discussion Based on Three Cases. Jnl. Lab. Clin. Med., 32-8:988-1001 (August) 1947.

These workers first review the technique of "peritoneal kidney." Through a low lateral McBurney incision, and under local anesthesia, a small "sump" drain was inserted into the RLQ and placed in the right paracolic gutter adjacent to the cecum. Through a trochar, a No. 18 French catheter was introduced well into the peritoneal cavity at a point in the ULQ two inches below the costal margin. The irrigating solutions were introduced through the catheter, chiefly mamalian Tyrode's solution but also for brief intervals glucose in water, sixth-molar sodium lactate, and Ringers solution. 25,000 units of penicillin and 1 mg. of heparin were added to each liter of solution, and penicillin (and streptomycin in two cases) were given during the irrigation. The rate of flow was nearly 1000 cc per hour.

Three cases of acute renal failure resulting from transfusion of incompatible blood, were treated. Case 1 recovered. In 5.5 days of irrigation, 76.84 gm. of urea were cleared in the peritoneal washings. However, toward the end of irrigation, the patient became more edematous and acidotic, associated with continued peritoneal absorption of salts and water, greatly benefitted by substituting as the irrigating solution five per cent glucose in water. By this means, 60-70 gms. of NaCl were removed, followed by diuresis and recovery. Peritonitis in this case, due to Proteus morgani, was successfully treated with streptomycin, which resulted in vestibular damage.

Case 2 demonstrated marked and repeated hemolysis with transfusions in spite of carefully matched blood. The peritoneal irrigation was started earlier, and glucose in water was used first, followed by Tyrode's solution and small amounts of lactate-Ringer's solution .115 gm. of urea were measured in the outflow in seven and one-half days. Subcutaneous edema appeared, attributed to peritoneal absorption of water and salt. Acidosis became very severe. A localized peritonitis developed, treated by streptomycin. Exitus occurred after a convulsion on the fifteenth day after the original transfusion. Autopsy revealed characteristic renal damage.

Case 3 ran essentially the same course. 71.5 gm. of urea were cleared in three days of irrigation. Pronounced acidosis developed. The patient succumbed when 3000 cc. of blood were introduced into the mediastinum and pleural spaces during an attempted sternal transfusion.

In summary, two major complications were related to the irrigation in each case: (1) Severe acidosis and (2) the absorption of water and salts from the peritoneal surfaces. Indications were that the acidosis resulted from differential washing out of base while neutral salts were absorbed. Generalized edema developed or became accentuated, and threat of pulmonary edema remained constant.

These workers conclude that peritoneal irrigation as outlined is not a satisfactory method of treatment in acute renal damage from transfusion reaction. They prefer: (1) Transfusion of compatible blood during the first phase of hemolysis and hypotension; (2) Restricted fluid intake, salt restriction, and added sodium bicarbonate during the second phase of renal insufficiency; (3) Replacement of the water-salt loss during the third phase of copious diuresis, appearing about the eighth to fourteenth day.—*E.J.R.*

* * *

Parenteral Nutrition

Complete Parenteral Nutrition for the Surgical Patient. Paper read by Robert Elman at International Medical Assembly of Interstate Postgraduate Medical Association of North America, St. Louis, October 14, 1947.

Dr. Elman's discussion was directed primarily to the needs of the patient with intestinal fistula, but it applies equally well to any patient in whom resort must be had to parenteral feeding. The problem is considered with respect to daily needs as follows:

(1) *Minerals:* for most patients, 2 grams of NaCl; other minerals may be disregarded over short periods of time.

(2) *Vitamins:* the Vit. B complex, including 5 mgm. each of B_1 and B_2, 50 mgm. of niacin, plus 1000 mgm. of Vit. C are administered by single i.v. injection.

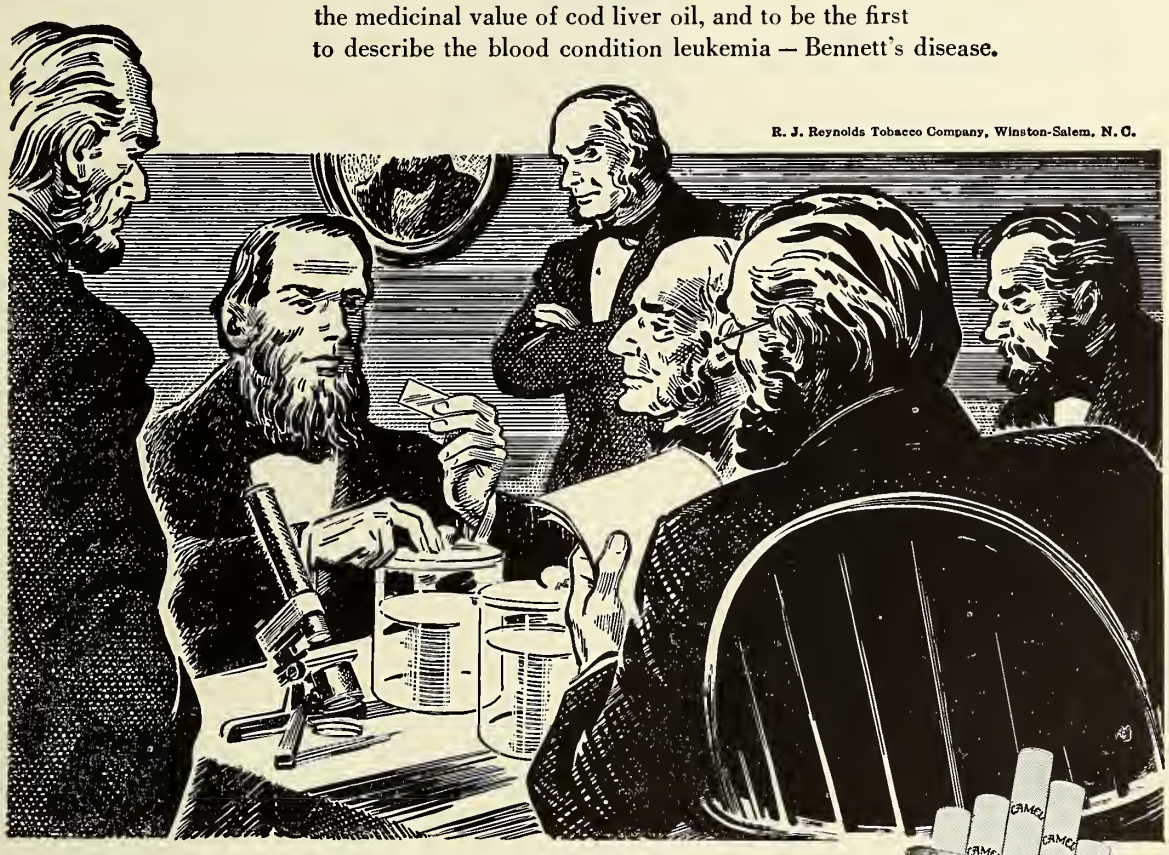
(3) *Water:* two liters are regarded as adequate for the average patient without excessive loss of fluids; "one quart for urine, and one for sweat."

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(4) *Foodstuffs:*

(a) *Glucose:* 100 gms are enough for adequate fat metabolism to yield the required number of calories, when the caloric value of the amino acids administered is added.

(Note: one gram of glucose will metabolize fully one gram of fat.) Thus:

100 gms of glucose @ 4 cal./gm = 400 cals.
100 gms of fat @ 9 cal./gm = 900 "

(b) *Protein,* as amino acids, 5%, sol. is given i.v., 2000 cc. Thus 100 gms will give positive nitrogen bal. @ 4 cal./gm. = 400 "

Total calories for 24 hrs., 1700

(c) *Fat:* this is derived from the body stores; some 90,000 cals. are thus available in an average body (20 lbs. of fat). (If these have been depleted they may be supplemented by i.v. alcohol, 5% sol.)

Clinical application: Only two items are necessary to supply the above:

(a) Vitamins are administered as in (2) above.

(b) Amigen (Mead Johnson & Co.) contains 5% glucose, 5% amino acids, and 0.25% salt. Two liters, administered daily at a rate of about 3 hours per liter, will thus yield:

glucose	100 gms
protein	100 gms
salt	5 gms

Comment:

Reactions: these are rare and not usually severe, 0.8% as compared with an incidence of about 2% for plasma in Dr. Elman's series.

Nitrogen balance is positive on the above intake of 36 gms in 5 days, as opposed to an output of 26 gms in this time. Under these conditions any weight loss is due to loss of fat; the body protein is not sacrificed.

Earlier general recovery, less edema with consequent earlier functioning of surgical stoma, better gastro-intestinal motility, and earlier ability to handle oral diet are reported by Dr. Elman. On this regime a patient may be prepared for surgery who might otherwise be unable to withstand operation.—*T.P.B.*

* * *

Sodium Bicarbonate with Sulfonamides

Joseph H. Rohr and Paul S. Rhoads, Quarterly Bulletin of Northwestern University Medical School, 21:130-134, 1947.

The summary in the November, 1947, Digest of Treatment points out the following:

1. If sufficient alkali is given to maintain a urinary ph of 7.5, the sulfonamide can pass through the renal tubules in a 1000 mg. per cent concentration in solution without precipitation.

2. If the urine is less alkaline than ph 7.5, sulfonamide concentrations as low as 100 to 300 mg. per cent may precipitate with resultant anuria and death.

3. Ingested alkali dosage necessary to produce urine ph 7.5 may vary with the patient and the disease.

4. Sodium bicarbonate, 24 grams daily divided into four or six equally spaced doses, kept the urine alkaline in most patients without clinical or chemical alkalosis. Where oral medication was not possible, intravenous 1/6 molar sodium lactate or sodium bicarbonate was used.

5. Effervescent alkali was more acceptable to patients and proved as effective, therefore was considered the alkaline preparation of choice.—*P.W.M.*

Curare: Its Past and Present

Stuart C. Cullen, Anesthesiology, 8:479-488, September, 1947.

The author has reviewed the history of curare from its first use by South American Indians to its present clinical use in medicine. The Indians were aware of the powers and limitations of the crude drug. While we have a purer and more predictable product today, we have not altered the conception of the drug's fundamental properties that was held by investigators and clinicians of the early 19th century. Sir Walter Raleigh in 1584 presented Queen Elizabeth with some of the crude drug. The author relates that in 1745 De La Condimine, a French investigator, conducted the first reliable physiologic experiments with the drug. Little progress was made until 1828 when two French physicians, Roulin and Roussingault, isolated an active principle to which they gave the name curarin.

In 1844 Claude Bernard, the eminent French physiologist, established the fact that curare paralyzed the motor nerves. These researches were extended by Virchow and Munter, German investigators, who found that it induced a stupor and a paralysis of voluntary muscles and that it was only effective when introduced into the body parenterally, and that death from curare was due to paralysis of respiratory muscles and not to central nervous system poisoning as had been previously thought.

Clinical application of curare was first attempted in 1866 by two French physicians, Tiercelin and Benedict, for the relief of the convulsions of epilepsy, and in 1878 H. Hunter, a British physician, used curare in the treatment of the spasticity of tetanus and hydrophobia. The results were uncertain and the drug was given up.

In 1932 Ranyard West, an English physician, used curare in the treatment of certain spastic disorders, such as Parkinson's disease, parathyroid tetany, epilepsy and hemiplegia. His clinical results were not encouraging, but he did add much to our knowledge concerning curare.

In 1939 intercostin, a predictable and stable preparation, was introduced. This product was the result of coordination and cooperation of Richard Gill, an explorer and naturalist, and Dr. McIntyre, pharmacologist at the University of Nebraska. Intercostin is now clinically accepted and, with its active principle d-tubocurarine, makes up preparations that allow research workers and clinicians to rely upon them for consistent action.

In 1940 at the meeting of the A.M.A., Bennett had an exhibit regarding the use of curare during metrazol and electric shock therapy. This stimulated much interest and speculation as to its use in anesthesia as a means of improving muscular relaxation.

It is emphasized that it has no analgesic or anesthetic action and is used only in conjunction with anesthetic agents to aid in securing better muscular relaxation. Its principal advantage in anesthesiology is to provide muscular relaxation with low concentration of potent anesthetic agents. It has been used in conjunction with cyclopropane, nitrous oxide and pentothal sodium anesthesia.

It was determined during further research that curare does not alter cardiac rhythm, does cause relaxation of the small intestine and does not interfere with certain elements of tissue metabolism.

The author reviews the disadvantages and dangers and especially warns against over-dosage with resulting respiratory paralysis and peripheral vascular collapse.

Recently Schlesinger (1946) has used a preparation of curare in oil in treatment of certain spastic states with encouraging results. Also Ransohoff has used curare in the treatment of poliomyelitis.



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1. Dunn, H. L.: Am. J. Pub. Health 36:1412 (Dec.) 1946.

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Curare has secured a respectable place in the modern armamentarium of therapeutic agents. Much remains to be learned about the drug. It is anticipated that this jungle poison will justify the faith in it that all its ancient and contemporary patrons have had.—*H.F.S.*

* * *

Streptomycin in Meningitis

Sreptomycin in the Treatment of Meningitis. Tom Fite Paine, Roderick Murray, Albert O. Seeler and Maxwell Finland, Ann. Int. Med., *27:494-518, October, 1947.*

These authors report the treatment with streptomycin of 16 cases of meningitis in infants and children due to H. influenza. Fifteen patients recovered. The response was usually prompt, distinct improvement occurring within 24 to 72 hours of starting treatment. Neurologic sequelae deafness, and blindness occurred in only one case. The medication was given intramuscularly and intrathecally.

Eight patients with meningitis due to other gram-negative bacilli were treated with streptomycin, and six recovered. Causative organisms included Pseudomonas aeruginosa (B. pyocyaneus), Proteus morgani, Aerobacter aerogenes, Escherichia coli communis, H. parainfluenzae, and a "pleuropneumonia-like" organism. Penicillin with or without sulfadiazine had been given before streptomycin was started. In the recovered patients, response to streptomycin was prompt. One resistant strain appeared during treatment.

Three cases of tuberculous meningitis were treated with streptomycin. There was one death.

Among the untoward reactions to streptomycin, fever attributed to the drug was most common, occurring definitely in 9 of the 24 nontuberculous cases. Atoxia occurred in only one case. One patient developed a macular, erythematous rash.

These authors consider streptomycin to be of considerable value in the treatment of meningitis due to gram-negative bacilli, and recommend that it be given intramuscularly and intrathecally. In adults an intramuscular dose of 1 gram every 6 hours and a daily single intrathecal dose of 50 mg. appears to be adequate in most cases. Infants and small children may receive about 25 mg., or slightly more, per pound of body weight per day intramuscularly and 10 to 50 mg. daily by the intrathecal route. It is suggested that sulfadiazine be given concomitantly if treatment is started late or in seriously ill patients. In cases due to H. influenzae type B, specific antiserum and sulfadiazine should be added under similar circumstances.—*E.J.R.*

* * *

Acromegaly with Amyotrophic Lateral Sclerosis

Acromegaly Associated with Amyotrophic Lateral Sclerosis and Acromegaly of the Amyotrophic Type. E. Perry McCullagh and J. S. Hewlett, Jnl. Clin. Endoc., 7:636-643, September, 1947.

In their preliminary discussion, these authors bring out the fact that an "amyotrophic form of acromegaly" was described by Duchesnau as early as 1891, and that a relationship between acromegaly and neuromuscular disorders has been stressed by several other workers since. They feel that the coexistence of the two disorders may be of importance in attempting to analyze and study the etiological factor in amyotrophic lateral sclerosis.

Three cases are presented as follows:

Case 1: An Italian woman, age 41, presented the typical symptoms and signs of acromegaly. Neurological examination showed marked atrophy of both deltoid muscles as well as the muscles of the arms and forearms. Hoffman's sign was positive bilaterally, and fibrillary twitchings were present in the muscles of both arms. Babinski sign was questionable. Sensory perception was normal.

The patient died four days after pituitary surgery, and autopsy revealed an acidophilic pituitary adenoma and degenerative changes in the spinal cord consistent with a diagnosis of amyotrophic lateral sclerosis.

Case 2: A woman, age 66 at original examination, presented typical findings of acromegaly, with associated diabetes and hypermetabolism. In addition she had profound weakness of the musculature of the upper and lower extremities. Neurological examination revealed hyperactivity of all deep reflexes. Babinski's sign was positive on the left, and abdominal reflexes were absent. There was marked atrophy of muscles of the arms and legs, and a few fibrillary twitchings were visible. Sensory perception was normal.

She received extensive therapy, including control of the diabetes, x-ray to the pituitary and thyroid, Lugol's solution, thiamin, liver extract, and Vitamin E. Eight years after original study muscular strength was much improved. She was classified as acromegaly of the amyotrophic type.

Case 3: A man, age 52, presented a typical picture of acromegaly, but complained primarily of progressive weakness in both lower extremities.

Neurological examination showed atrophy and weakness in both legs. Fibrillary twitchings were visible in both thighs. Deep reflexes were hyperactive. Abdominal reflexes were present over the upper half but absent over the lower half of the abdomen.

In an attempt to encourage nitrogen retention, he was given testosterone propionate and a diet containing 125 gms. of protein per day. On this he showed some improvement in muscular strength prior to his death following a cerebral vascular accident.

The authors suggest that the increased metabolic demand incident to the acromegaly in these three cases was an important factor in the production of the neuromuscular disease which simulated or actually was amyotrophic lateral sclerosis.—*E.J.R.*

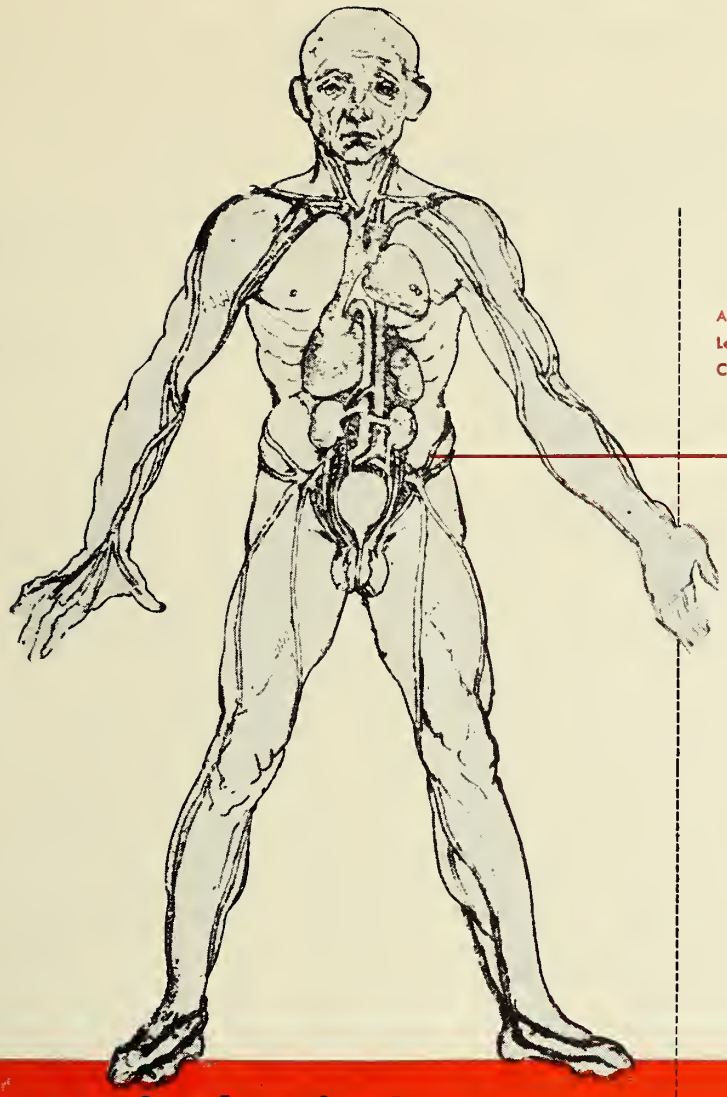
Nutrition Standards Suggested

Because "a majority of Americans suffer from nutritional deficiencies," enactment of laws to maintain standards of nutrition comparable to the pure food laws was suggested recently by Basil O'Connor, national chairman of the American Red Cross, at the second annual dinner of the National Vitamin Foundation.

Survey estimates, Mr. O'Connor reported, indicate that 15 per cent of our people have frank symptoms of nutritional diseases, and nearly 70 per cent of our people are suffering with subclinical disorders indicative of marginal deficiencies.

"Establishing basic nutrition for the mass of people is so vital that it may be wise to have insured nutrition rather than trust all our efforts to education," he said. "By law, it is required that certain standards of purity be maintained in food items sold to the public. Are not standards of nutrition fully as important as standards of purity?

"Enrichment of flour is already a widespread practice and one that is accomplishing much good. But that good can be enhanced still further by adding other essential nutrients usually lost in the extraction and purifying processes. Other common foods like oleomargarine might well be fortified with the lacking vitamins. Our present technical knowledge would permit us to control vitamins and mineral content of canned and processed fruits and vegetables."



Anatomic drawing by
Leonardo da Vinci—
Courtesy, The Bettmonn Archive.

Leonardo da Vinci (1452-1519)

was well ahead of his time, for physicians of his day knew little of the function of the heart or the treatment of its diseases, although da Vinci's knowledge of such anatomy was extensive.

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BOOK REVIEWS

Gifford's Textbook of Ophthalmology. Fourth Edition. By Francis H. Adler, M.D. Published by W. B. Saunders Company, Philadelphia. 512 pages, 310 illustrations. Price $6.00.

This is a most complete, concise and inclusive book on the subject of ophthalmology. It is designed, as the author states, to be useful as a textbook in the medical curriculum and also as a reference work.

The chapters on ocular disorders due to diseases of the central nervous system and ocular manifestations of general disease alone, make it a valuable source of reference to the general physician as well as the opthalmologist.—*W.W.R.*

* * *

400 Years of a Doctor's Life. Collected and arranged by George Rosen, M.D., and Beate Caspari-Rosen, M.D. Published by Henry Schuman, New York. 429 pages. Price $5.00.

A reviewer of this book could do no better than to quote from its preface, "The aim is to present an informal portrait which will show the doctor not only as the Great Healer or Great Scientist but also as a citizen of everyman's world. To achieve this aim, more than 80 personalities have been selected from among men and women who have made significant contributions to the literature of medical autobiography. What these doctors say here reveals to the layman the matrix of a doctor's life and a sense of the sweeping drama of medical history, with a clarity attainable in no other medium."

The book is an anthology with excerpts from doctor's writings divided into the following classifications: Early Years, School Days, The Medical Student, The Practice of Medicine, Scientist-Scholar-Teacher, The Doctor Marries, The Doctor as a Patient, The Doctor Goes to War, Writing and Politics, Reflections on Life and Death.

The span of years provides for contrast in each classification, and the personalities of the authors are reflected in their writings. There was no attempt to include each doctor in each section, and the selections were made on the basis of interest and insight into the life of the doctor as a person. Consequently, the book is one any doctor will enjoy reading, and it is so arranged that it can be picked up for random sampling if preferred.

Among those whose works are quoted are Oliver Wendell Holmes, Havelock Ellis, J. Marion Sims, Benjamin Rush, Elizabeth Blackwell, Sigmund Freud, Horace Wells, Arthur E. Hertzler, S. Josephine Baker, Harvey Cushing, Rudolf Virchow, William Osler and Ambrose Pare.

Books Received

Practical Child Guidance and Mental Hygiene. By Samuel Kahn, M.D., Grace Kirsten, A.B., and May Elish March, A.B., M.A. Published by Meador Publishing Company, Boston.

Sexual Behavior in the Human Male. By Alfred C. Kinsey, Wardell B. Pomeroy and Clyde E. Martin. Published by W. B. Saunders Company, Philadelphia. 804 pages, 173 charts, 159 tables. Price $6.50.

Bibliography

Listed below are the references for the paper, "Evaluation of Cardiac Patients for Surgery," by Mahlon H. Delp, M.D., Kansas City, Kansas, which appeared in the December, 1947, issue of the Journal:

1. Marvin, H. M.: The Heart During Anaesthesia and Operative Procedures, New Eng. J. Med. 199:547. (Sept. 10) 1928.
2. Butler, S., Feeney, M., and Levine, S. A.: The Patient with Heart Disease as a Surgical Risk, Review of 414 Cases, J.A.M.A. 95:85. (July 12) 1930.
3. Sprague, H. B.: The Heart in Surgery, Surg. Gynec. Obst. 49:54. 1929.
4. Jensen, Julius: The Heart in Pregnancy, The C. V. Mosby Co., St. Louis. 1938.
5. Clawson, B. J.: Incidence of Types of Heart Disease among 30,265 autopsies with Special Reference to Age and Sex, Am. Heart J. 22:607. 1941.
6. Rountree, L. G.: National Program for Physical Fitness Revealed and Developed on the Basis of 13,000,000 Physical Examinations of Selective Service Registrants, J.A.M.A. 125:821. 1944.
7. Levy, R. L., Stroud, W. D., and White, P. D.: Report of Reexamination of 4,994 Men Disqualified for General Military Service Because of the Diagnosis of Cardiovascular Defect: A Combined Study made by the Special Medical Advisory Boards in Boston, Chicago, New York, Philadelphia and San Francisco. J.A.M.A 123:927, 1029. 1943.
8. Massie, Edward and Valle, Anibol, Roberto: Cardiac Arrhythmias Complicating Total Pneumonectomy, Ann. Int. Med. 26:2. Pg. 231-239. Feb. 1947.
9. Harrison, Tinsley R.: Diagnosis of Heart Failure, J.A.M.A. 115:7. Pp. 524-527. Aug. 17, 1940.
10. White, P. D.: Heart Disease: New York. The MacMillan Co. P. 282. 1931.
11. Clendening, Logan: Personal Communication.
12. Levy, R. L., Patterson, J. E., Clark, T. W., and Bruenn, H. D.: "Anorexia Test" as Index of Coronary Reserve: Serial Observation on 137 Patients and Their Application to Detection and Clinical Course of Coronary Insufficiency, J.A.M.A. 117-2113. (Dec. 20) 1941.
13. Master, A. M., Nuzie, S., Brown, R. C., Parker, R. C.: The Electrocardiogram and The "Two-Step" Exercise. A test of Cardiac Function and Coronary Insufficiency. A.J.M.S. 480-485. April 1945.
14. Herrmann, George, and Herrmann, Lou's G.: Cardiac Disorders in Surgical Patients: Criteria Used in Estimating the Risk Involved. Texas J. Med. 30:3. Pp. 183-191. July 1934.
15. Wirth, Willard R.: Anaesthesia in Heart Disease. New Orleans Med. and Surg. Jour. 95:6. Pp. 273-278. Dec. 1942.
16. Belinkoff, Stanton: The Choice of Anaesthesia in Cardiac Disease. Anaesthesiology. 7:268. May 1946.
17. Kurtz, C. M., Bennett, J. H., and Shapiro, H. H.: Electrocardiographic Studies During Surgical Anaesthesia. J.A.M.A. 106:434. 1936.

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PITFALLS IN THE TREATMENT OF DIABETIC COMA*

Alexander Marble, M.D.**
Boston, Massachusetts

The year 1947 marks the twenty-fifth anniversary of the clinical use of insulin. During the last quarter-century the outlook for the diabetic has improved to an extraordinary degree. He is now able to lead a useful, happy and essentially normal life. His life expectancy after the onset of diabetes has increased so that it compares favorably with that of non-diabetics. For the first time in the history of the world, diabetic children are living on and on, so that in our own group alone, there were on January 1, 1946, 249*** with onset at 15.0 years of age or under who had survived the disease for 20 or more years; of these, 237 were still alive.[1A]

Despite these remarkable advances in the insulin era, the fact remains that patients still acquire, and not infrequently die from diabetic coma, that unique complication which represents the end-stage of the uncontrolled disease. It is true that the morbidity and mortality from diabetic coma have been greatly lowered but there is still much room for improvement. In Table I are shown data from our own group. It will be noted that whereas in 1898-1914, 63.8 per cent, or more than six of every 10 deaths were in coma, the number in the last 10 years has been reduced to somewhat over three per cent. Yet even better statistics are possible since diabetic coma is a preventable condition and, if treated early enough, always remediable.

The above figures refer to the percentage of coma deaths to all deaths among diabetics. Further evidence as to trends may be obtained from a study of mortality rates in patients with diabetic coma. In our own series of 651 cases from May, 1923, to January, 1946, there were 61 deaths or 9.4 per cent of the total. Mortality has ranged from 21 per cent in the early days of insulin (May, 1923, to March, 1925) to 2.4 per cent in the series of 126 cases from January, 1942, to January, 1946. There have been only four deaths among the last 188 patients admitted in coma.*

The above figures are cited simply to indicate trends in the practice of one group of physicians seeing diabetic patients. They are not necessarily comparable with statistics from other clinics because of the variation in clientele, local conditions and standards of classification. It is important, and indeed imperative, however, that each clinician analyze his own experience and make every attempt to improve methods of diagnosis and treatment in his own practice to the end that throughout the country deaths from diabetic coma may be abolished. This, of course, demands not only increasingly better treatment by the physician but also education of the patient and the public.

PREVENTION

It goes without saying that it is the careless patient, the patient with porly controlled diabetes, who is most likely to develop diabetic coma. Herein lies the outstanding value of early and continuous education of the patient and his family regarding diabetes, it complications and its home management. This may be accomplished either by class or individual instruction, depending upon the number of patients concerned. To enable himself to be of

*Presented at the 88th Annual Session, Kansas Medical Society, Topeka, May 13, 1947.
**From the George F. Baker Clinic, Elliott P. Joslin, M.D., Medical Director, New England Deaconess Hospital, Boston, Mass.
***By August 1, 1947, the number had grown to 350.

Table I
Coma as a Cause of Death in 8384 Diabetics*
(Experience of Elliott P. Joslin, M.D., and associates)

Period	Total Deaths	Deaths due to Coma Number	Deaths due to Coma Per Cent
1898-1914	326	208	63.8
1914-1922	836	347	41.5
1922-1936	3988	336	8.4
1937-1943	2583	87	3.4
1944-1946	651	20	3.1

*Prepared with the cooperation of the Statistical Bureau, Metropolitan Life Insurance Company. See Joslin *et al.* (1B)

*Up to January 1, 1948 there were 704 cases of coma with 61 deaths or 8.6 per cent mortality. There were no deaths among the 53 cases in 1946 and 1947.

greater service, the physician should enlist the aid of a nurse, dietitian or other qualified worker in order that details of management may be explained over and over to patients. At office or hospital visits, the physician must take every opportunity to instruct and to encourage. The old adage that "the patient who knows the most lives the longest" is thoroughly sound.

This is an appropriate point to state briefly, though emphatically, the belief of the writer and his associates and that of many clinicians over the country that the careful treatment of diabetes pays. We believe that not only are acidosis and coma more common in patients with poorly controlled diabetes but also that the degenerative complications, chiefly arteriosclerotic, now seen to such alarming extent after 15 or 20 years of diabetes in certain patients with onset in childhood[1], are the result of poorly controlled diabetes and are to be avoided or deferred only by continuous, careful treatment. We deplore the teaching that hyperglycemia and glycosuria are not harmful and urge that the aim of treatment be as nearly 100 per cent control and restoration of normal conditions as is possible or practicable in the individual case.

Among errors made by patients which may precipitate diabetic coma, one finds that frequently, even in well-trained patients, insulin is omitted during times of acute illness when food intake is scant and perhaps nausea and vomiting are present. The patient, fearing hypoglycemia, reasons that "if I don't eat, I should not take any insulin." The end-result is increasing hyperglycemia with the development of acidosis and eventual coma. Consequently, patients must be made to understand that at times of acute illness, insulin must be continued daily. Often, particularly if the illness is accompanied by fever, an even greater dose may be necessary. The dose should not be reduced unless the urine, tested every three or four hours, contains no sugar.

Patients must be taught to make regular visits to the physician for check-up at intervals which may vary from once a month to once or twice a year, depending upon the case. Patients and their families must be instructed to get in touch with the physician at once during the early stages of any illness before the development of serious complications.

DIAGNOSIS

Anyone who has had the experience will sympathize with the physician confronted with a drowsy or unconscious patient regarding whom no satisfactory history can be obtained. However, one goes far if one simply keeps diabetic coma in mind as a possibility and adds it to the list of conditions to be considered, including hypoglycemia, uremia, cerebral hemorrhage, fractured skull, brain tumor, meningitis and overwhelming infection. Usually clinical findings, which will not be detailed here, give leads as to diagnosis which can then be promptly followed up by appropriate laboratory studies. It must be remembered, however, that often the clinical findings are not typical and may confuse the most experienced observer. It is so easy to be misled that the diagnosis should be confirmed by laboratory tests in each case. This need not, and should not, delay treatment in cases of definite diabetic coma because, based on the examination of the urine for sugar and diacetic acid, treatment may be got under way while blood determinations are being carried out.

In a case of diabetic coma there is need for speed of action. Treatment must be started not in 12 hours, not in six hours, not in two or three hours—but within a few minutes after first observation. These few hours may be the ones which mean the difference between a happy, and a fatal, outcome. At first observation, a brief but adequate history and physical examination must be carried out with expediency. If the clinical impression includes diabetic coma as a possbility, then the urine, obtained by catheter if necessary, should be tested for sugar and diacetic acid at once and on the spot. Blood should be drawn for determination which should include at least that for sugar, preferably also for carbon dioxide content and non-protein nitrogen and, if available, those for chloride and acetone body content. In any well-regulated hospital, facilities for the determination of blood constituents, at least those most likely to be needed, should be available nights, Sundays and holidays. The report of the initial blood studies should be ready for the physician within an hour after admission of the patient.

TREATMENT

1. *Insulin.* The most treacherous pitfall in the treatment of diabetic coma is the danger of giving too little insulin. Diabetic coma is primarily a condition of acute insulin deficiency which can be relieved only by the prompt administration of truly adequate doses of insulin. Insulin must be accorded first place in any discussion and other items of treatment, however valuable, must be relegated to less important positions. All too often the physician has an unwarranted fear of hypoglycemia. If treatment is sensibly and intelligently planned, little basis for such fear exists. In the average case of full-blown coma, insulin must be given boldly and fearlessly in large doses, particularly in the first three hours after the patient is brought for treatment.

As soon as the diagnosis is made, a preliminary large dose of unmodified insulin, at least 50 units and in most patients 100 units, should be given subcutaneously. In patients in shock or in whom it might be anticipated that absorption from subcu-

taneous spaces might be slow, a supplementary dose of like size may be given intravenously. Additional amounts should be given in divided doses during the first three hours of observation, basing the decision as to size of dose upon clinical behavior and the level of the initial blood sugar, according to some such schedule as the following:

If the initial blood sugar is

300-600 mg. per 100 cc., give 50 to 100 additional units

600-1000 mg. per 100 cc., give 200 additional units

Over 1000 mg. per 100 cc., give 300 additional units

After three hours, the blood studies should be repeated. This is extremely important because thereby at an early stage one can learn the progress of treatment and the response of the patient. One hopes that the blood sugar will be falling and the carbon dioxide content rising but if this proves not to be the case, then one knows that, regardless of the size of previous doses, insulin must be given promptly and in still larger amounts. Some patients in diabetic coma need much more insulin than others but it is fair to state that if enough insulin is given, even exceeding 1000 units over a period of a few hours, a blood sugar-lowering effect will be obtained. It must be borne in mind that in diabetic acidosis, insulin, like paper money in times of inflation, does not have its face value. The size of dose must be gauged by the effects obtained rather than by any routine plan.

Comments above as to size of dosage refer to the treatment of young adults or adults in well-marked acidosis and coma. In children or in those patients with untreated diabetes of recent onset or in those with relatively mild acidosis, the number of units given should be smaller although at all times thoroughly adequate to bring about prompt recovery.

2. *Fluid and Salt.* A second common pitfall in treatment is the danger of not replacing adequately the fluid and electrolytes lost in large amounts in the development of coma, chiefly by diuresis and vomiting. The use of parenteral infusions gains added importance in those patients in shock with a rapid, weak pulse, low blood pressure and cold, mottled extremities. The discussion to date may have suggested that the writer regards the treatment of diabetic coma to be a matter solely of the administration of insulin. The important point is that if truly adequate doses of insulin are not given early enough, other features of treatment will be of no avail. Next of importance to insulin is the giving of adequate amounts of water and electrolytes. In practice, one starts within a few minutes after admission an intravenous infusion of a physiologic solution of sodium chloride and allows this to run in slowly for the next few hours until at least 2000 and at times 3000 to 4000 cc. have been given or the desired effect secured. Occasionally, even larger amounts, up to 6000 cc. in the first 24 hours, may be necessary and in one extraordinary case Root and Riseman[2] used 11,000 cc. in the first day of treatment. Although normal salt solution seems surprisingly effective, it is possible that a more complex solution of several electrolytes might be even better; further data are needed on this point. Although it might appear reasonable to use some potassium in the infusion fluid, particularly in view of the recent report of Holler[3], extreme care is necessary in the parenteral use of potassium, especially in cases with kidney damage and block, because of its marked toxicity and the danger of producing heart block.

3. *Glucose.* A third pitfall is the danger of ascribing importance to the giving of glucose parenterally early in treatment. Often one is distressed to have physicians begin an outline of the treatment of diabetic coma by mentioning first the administration of glucose intravenously in sizeable amounts, indicating that their attention has been diverted from the all-important matter of giving enough insulin. It is freely admitted that many patients have recovered from diabetic coma who have been treated in this fashion. One can be certain, however, that only those patients got well who received also adequate amounts of insulin. Furthermore, the glucose given with the first four or six hours, or during the period of a markedly elevated blood sugar, probably did little or no good.

In our opinion, the use of glucose parenterally during these first few hours has no place in treatment, for the reasons listed below:

(a) Glucose injected intravenously cannot be oxidized any more readily than the glucose which is already flooding the blood and tissue fluids generally.[4] The critical need is not for more glucose but for adequate amounts of insulin without which the sugar cannot be utilized.

(b) Since long-continued hyperglycemia may produce permanent diabetes even in normal animals[5] by virtue of overwork of islet tissue, is it not illogical to cause greater strain in the patient with diabetic coma?

(c) Circulatory shock can be satisfactorily combatted by means of salt solution intravenously.

(d) A deficiency of serum potassium with resulting paralysis of voluntary muscles has followed the use of large amounts of glucose in coma.[3]

(e) Under certain conditions, added glucose may precipitate renal block.

(f) The giving of glucose intravenously makes it difficult to gauge the dosage of insulin because of the artificially raised blood sugar level.

The above comments apply during the first four or six hours of treatment in the average case. If adequate amounts of insulin have been given, by this time the blood sugar will have started to fall and acidosis to clear up. At this stage carbohydrate may be started orally (or, in exceptional cases, intravenously if need be).

4. *Alkalies.* The subject of alkalies in the treatment of diabetic coma has been discussed many times and need not be reviewed here. Suffice it to say that we do not use alkalies, either orally or parenterally, and regard their use as undesirable. The administration of alkalies represents the treatment of the effect, rather than the cause, of acidosis. With prompt, energetic treatment with insulin and salt solution, relief of labored breathing and of gastrointestinal symptoms takes place with gratifying promptness.

5. *Accessory measures.* In one's concern over the blood sugar, the carbon dioxide content, and body fluid and electrolytes one must not lose sight of accessory items of treatment which are of great importance. The patient must be kept warm by means of blankets, taking care not to burn the skin with hot water bottles, electric pads or other heating devices. Thorough search should be made for complications, particularly if fever is present. The stomach should be washed out routinely and a cleansing enema given to relieve abdominal distention. At times caffeine and adrenalin may seem indicated but almost never are of striking benefit. Transfusion of whole blood or plasma is rarely of value.

Of the utmost importance is the constant attendance of the physician until it seems certain that the early, vigorous treatment is proving successful and that recovery will take place.

6. *Subsequent Therapy.* Early in treatment, when consciousness has been regained and an hour or two after vomiting has subsided, fluids by mouth should be begun. After preliminary trials with water, warm broths, thin gruel, tea with sugar, orange juice and gingerale should be given at a rate of 100 to 150 cc. an hour.

After the initial large installment of insulin has been given in the first few hours and after the desired effect on the clinical condition and on the blood sugar and carbon dioxide content has been obtained, further administration of insulin may be made at first hourly, and later at two, three or four hourly intervals, according to the results of the Benedict test for sugar in urine. Within 18 to 24 hours, a soft solid diet may be begun and protamine zinc insulin started. In succeeding days, return to a standard diet and insulin adjustment are carried out and gradual resumption of activity allowed.

SUMMARY

1. The mortality and morbidity from diabetic coma have decreased but further improvement is possible and urgently needed.

2. Prevention may be accomplished by early and continuous education of the patient, his family and the general public.

3. Maximal success in treatment can be attained only by prompt diagnosis and early, vigorous use of insulin, particularly in the first three hours.

4. Initiation of the restoration of fluid and electrolyte balance may be satisfactorily accomplished by normal salt solution given intravenously. This is followed by early institution of oral feedings of water, tea with sugar, broths, gruel, orange juice, and gingerale.

5. The constant, personal attention of the physician and the fearless use of insulin in adequate dosage are all-important.

REFERENCES

1. Joslin, E. P., Root, H. F., White, P., Marble, A. and Bailey, C. C.: The Treatment of Diabetes Mellitus, Philadelphia, Lea and Febiger, 8th Ed., 1946. (a) p. 763. (b) Table 26, p. 229.

2. Root, H. F., and Riseman, J. E. F.: The Exceptional Requirement of Insulin and Salt Solution in Diabetic Coma, J.A.M.A., *110*, 1730-1732 (May 21) 1938.

3. Holler, J. W.: Potassium Deficiency Occurring During the Treatment of Diabetic Acidosis, J.A.M.A., *131*, 1186-1189 (Aug. 10) 1946.

4. Root, H. F., and Carpenter, T. M.: The Effect of Glucose Administration in Diabetic Acidosis, Am. J. Med. Sci., *206*, 234-243 (August) 1943.

5. Dohan, F. C., and Lukens, F. D. W.: Lesions of the Pancreatic Islets Produced in Cats by the Administration of Glucose, Science, *105*, 183 (Feb. 14) 1947.

Lest the young enthusiast be inclined to rest on his laurels, a review of the first decade of x-ray progress will bring with it a humble frame of mind. It is amazing that the early investigator who unknowingly risked his life with the crudest of makeshift equipment produced so much. Between the years 1895 and 1901, Francis H. Williams, William Rollins and Walter B. Cannon, to mention just a few, outlined many of the fundamental diagnostic and therapeutic criteria used today. It was Williams who threw a bombshell into a meeting of a medical society by maintaining that he could discover pulmonary tuberculosis by this new method earlier than by auscultation and percussion. In 1901 Williams' reports of cases treated by x-ray would put many modern physicians to shame because of their completeness. They contained a good history and description of the lesion, a biopsy done by Frank B. Mallory, detailed data of the technic used, extensive progress notes and photographs taken before and after treatment to document his results.—Ed., N.E. Jour. Md., Nov. 8, 1945.

Protolysate is a readily available hydrolyzed protein for the patient with impaired digestive functions. When absorption is decreased, as in diarrheal disease, or when enzymes are deficient, as in pancreatic insufficiency, Protolysate will aid in provision of sufficient protein nourishment to avert protein starvation. It is a product of Mead Johnson and Company, Evansville, Indiana.

SURGERY OF PANCREATIC CYSTS

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Pancreatic cysts, although not rare, are relatively uncommon. Through 1939, 139 patients with pancreatic cyst were treated by surgery at the Mayo Clinic.[1] In general there are three types of operation.

1. Removal in toto, the theoretically ideal but usually impossible method. Proliferative and neoplastic cysts should be completely extirpated.

2. Evacuation and marsupialization. This is the most popular method with a mortality of four to six per cent and it is satisfactory except in the case of proliferative cysts (Whipple[2]).

3. Internal anastomosis to the stomach, gallbladder or small bowel. Complete recovery follows surgical drainage in approximately 80 per cent.[2]

Judd[4] treated 33 patients with pancreatic cyst by drainage and found that most fistulae closed within one year. No fistula remained after two years. Lahey and Lium[5] found nine reported cases of primary anastomosis between the cyst and gastrointestinal tract without a death. In reviewing the literature they found 26 patients in whom transplantation of the fistulous tract, formed following removal of pancreatic tumors, to the gastrointestinal tract had been performed with only one death.

Hahn in 1927 performed the first anastomosis of a pancreatic cyst to the jejunum. Chesterman in 1941 reported a case similarly treated, and Adams and Nishijima have recently reported two cases. Where enteroanastomosis is combined with cystojejunostomy there have been no harmful results due to intestinal contents entering the cyst.

Berk[3] classifies pancreatic cysts as follows:

A. Malignant cysts
   1. Carcinomatous cysts (Lichtenstern)
      (a) Essentially solid adenoma with epithelial lined cysts
      (b) Large epithelial cysts with carcinoma in pancreas outside cyst wall.
      (c) Papillary cyst adenocarcinoma.
   2. Sarcomatous cysts in or about walls of cysts

B. Benign cysts
   1. Proliferative cysts (cystadenoma)
   2. Retention cysts
      (a) cystic fibrosis
   3. Degeneration cysts
      (a) Hemorrhagic cysts secondary to necrosis with bleeding. The retention and degeneration cysts are probably secondary to pancreatic and frequently this is secondary to gallbladder pathology.
   4. Congenital cysts
      (a) Association with polycystic disease of kidney and liver
      (b) Dermoid
   5. Parasitic cysts
      (a) Hydatid cysts
      (b) Taenia solium
   6. Pseudocysts with no epithelial lining, usually lying in the lesser sac.

The following case is of interest since the patient was treated by marsupialization of a large pancreatic cyst resulting in a persistent fistula with profuse irritating drainage 16 months later after unsuccessful use of sclerosing agents. Then the fistula was anastomosed to a jejunal loop with a jejunojejunostomy added. Complete relief of symptoms followed except that the patient developed diabetes mellitus. Postmortem examination four years later demonstrated the complete cure of the fistula and obliteration of the cyst.

The patient, A. A., a white male, age 41, was first seen in August 1940. He had had perfectly good health until two years before when he developed epigastric pain which lasted for two or three days on several occasions. He stopped drinking liquor and had no relief from the attacks of abdominal pain. He had some relief from bismuth powders and several symptom-free intervals lasting two to three months. Recently the attacks had been closer together and lasted for two weeks. His history reads, "He has lost 14 pounds of weight during the last two weeks and 36 pounds in the past year. He has food relief lasting a half hour followed by pain. Both milk and fried foods disturb him. He has vomited only twice since the onset. He has no relief from soda, and the pain is worse at night. He has always been very nervous, is not married and does his own cooking at home. There is no history of melena or hemorrhoids and the past history records only childhood diseases. He has suffered from bilateral inguinal herniae, wearing a truss for many years, and 12 years ago had syphilis which was treated fairly adequately; at least the blood became negative and three years later blood was still negative. Has used

large quantities of liquor for many years except during the past two years."

On admission the patient weighed 159 pounds, and appeared to have lost weight. Height was five feet, nine inches. The skin was rather inelastic and dry but no eruptions and several carious teeth were present. The chest was symmetrical and equal in expansion, resonance, fremitus, and breath sounds were normal and there were no rales. The heart was negative, rate 76, peripheral vessels soft. Blood pressure was 130/80. There was a visible and palpable mass about the size of a large orange in the epigastrium, slightly to the left and extending under the left costal flare. The mass was firm and tender, a pulsation was felt through it, and it moved with respiration. The kidneys, liver and spleen were not palpable. There were bilateral inguinal herniae which were supported with a truss. Physical examination was otherwise negative.

Gastrointestinal x-ray examination revealed that the mass was apparently not associated with the stomach or intestinal tract.

Urological examination revealed excellent concentration of PSP and there was no impairment of function. A pyelogram of the left kidney and ureter was normal in appearance.

The blood contained 97 per cent hemoglobin, 4,800,000 erythrocytes, 5,200 leukocytes, 62 per cent poly-nuclears, 34 per cent lymphocytes, 2 per cent basophils and 2 per cent eosinophils. The blood sugar was 98 mgm. Urine was negative except for one plus diacetic acid, one plus indican, seven pus cells, two plus mucus and one plus crystals. The Wassermann reaction was negative.

Following completion of all examinations diagnosis of pancreatic cyst was made and operation recommended.

Operation was performed August 15, 1940, under 20 mg. pontocaine spinal anesthesia through a left upper rectus incision. A large pancreatic cyst was found involving almost the entire midportion of the pancreas. There were huge varicosities throughout the gastro-colic omentum and coursing over the tumor. Exploration of the abdomen was otherwise negative. An opening was made in the gastro-colic omentum, the cyst was aspirated and over 1000 cc. of brownish fluid containing fatty globules was aspirated. The cyst was opened and a rubber tube drain placed in the cavity, then the wound was closed around the drain, anchoring the cyst wall to the peritoneum. The incision was closed with chromic catgut in deeper layers and tensions in skin.

The examination of the cyst fluid showed blood, a few epithelial cells and a trace of fat. 78.8 grams of sugar were produced from digestion of starch by 100 cc. of cyst fluid. Proteolytic and lipolytic activity was not determined; however, no subsequent steatorrhea, diarrhea, or flatulence and no marked digestion of skin would indicate that there was little, if any, loss of these enzymes. No tissue examination was made of the cyst wall which was quite thin where the drain passed through. A diagnosis of retention cyst of the pancreas was made based on the location of the cyst, the amylolytic activity of the fluid contents of the cyst and the presence of epithelial cells in the fluid.

The post-operative recovery was uneventful, drainage was profuse for a time and gradually decreased but the patient was discharged with tube still in place. He had complete relief from all digestive symptoms.

Second hospital admission: On December 14, 1941, he was readmitted to the hospital with the story that he had been much more comfortable since the operation 15 months before, in fact, the improvement was so great that he was able to resume the use of considerable quantities of alcohol. His main complaint was the presence of a discharging sinus, the discharge of which was moderately irritating and had not been modified by injections of sodium morrhuate and other sclerotics. He had regained a considerable portion of his former weight.

Physical examination was as on previous admission with the exception of the draining sinus two inches above the umbilicus, and no abdominal mass was palpable. A probe entered this tract to a depth of 3½ inches and 180 cc. of fluid could be injected and retained. The blood pressure was 100/70. At this time the urine contained a trace of sugar and blood sugar was 126 mgm. Blood count was essentially normal, the blood Wassermann was negative, and serum amylase was 72 units per 100 cc. of blood. Stool examination revealed fecal fat 4.2 per cent, fatty acids 2.1 gm. per cent, free fat .12 per cent, neutral fat 2.1 per cent, soaps 1.8 per cent.

The second operation was done on December 16, 1941, under ethyl chloride and ether anesthesia. A five-inch incision was made in the midline and the draining pancreatic sinus tract freed from the abdominal wall. A loop of proximal jejunum was then brought up through an opening made in the omentum and the apex of the loop was anastomosed to the proximal portion of the fistula. Before forming the anastomosis the distal portion of the fistulous tract was removed for tissue examination. The anastomosis was made with two layers of non-absorbable sutures. Following this an entero-anastomosis was done between the two limbs of the jejunal loop about 12 centimeters from the ligament of Treitz using two layers of fine chromic catgut, and the greater omentum was anchored to the two limbs above this point of entero-anastomosis to prevent internal herniation. The tissue removed at this operation showed considerable chronic inflammatory

change and no epithelial tissue. Convalescence was quite satisfactory and the patient went home with the drainage entirely relieved.

The patient developed diabetes mellitus one year later and consumed increasing quantities of alcohol. In May 1944 was hospitalized for a broncho-pneunomia from which he made a satisfactory recovery. He went home on a fairly low carbohydrate diet taking 20 units of protamine zinc insulin daily. He was admitted to the hospital again in January 1945 for acute alcoholism and diabetes with acidosis.

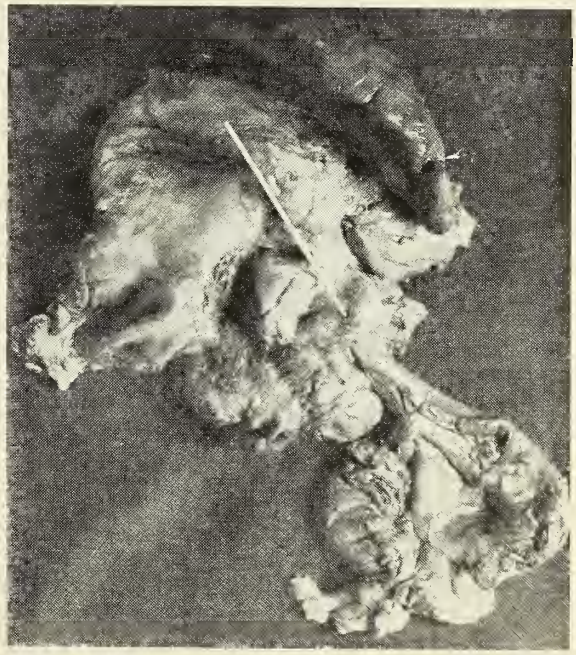
On September 3, 1945, he was admitted to the hospital in what proved to be the terminal illness. He had been drinking very heavily and apparently consumed 12 fifths of whisky during the preceding week. On the morning of day of admission he had been found unconscious in his room and brought to the hospital by ambulance. Apparently he had eaten little or nothing throughout this last spree and it could not be determined if insulin had been continued. He required restraint, was irrational and incontinent. The blood sugar level was 28 mg. and he was given intravenous glucose which restored the blood sugar to normal level but this brought about no response. It should be noted that there was no loss of pancreatic secretions at this time. On the third day the temperature rose to 108. He died three days after admission. The diagnosis was acute alcoholism. Blood CO_2 determinations were not made.

Post-mortem was performed by Dr. J. L. Lattimore with the following findings: on gross inspection a well developed, well nourished middle-aged male with an old surgical scar on the abdomen 5-6 inches in length to the left of the median line about one inch below and extending upward from the umbilicus. On removal of the skull cap there was no special edema of the brain or compression of the convolutions. There was no evidence of meningitis. Gross sections through the brain showed no evidence of hemorrhage or encephalitis. The lungs showed some edema and congestion but no consolidation, no evidence of pneumonia. The heart was normal in size, there was a very marked sclerosis of the coronary vessels, especially the left, but no occlusion. The valves appeared fairly normal, the aorta showed a moderate degree of sclerosis. In the abdomen there were multiple adhesions of omentum and jejunum, none of which caused any obstruction. There was no free fluid in the abdomen or evidence of acute infection, and no tumor was found. A fairly long loop of jejunum had been brought through the omentum and was firmly attached to the pancreas. Below the point of emergence through the omentum there was a well functioning enter-anastomosis between the two limbs of the jejunum. No cyst or sac could be found. There was a duct-like opening from the apex of the jejunal loop which extended a short distance, approximately a half inch, into the substance of the pancreas. The attachment of the jejunum to the pancreas was below the region of the stomach and through the gastro-colic omentum. Sections from the duct opening into the pancreas showed no epithelial lining which would indicate that this portion of the duct is part of the old cyst, rather than small intestine. Sections from the brain show very definie lymphocytic infiltration. Sections from the liver show a mild, diffuse hepatitis. Sections from the pancreas show moderate fatty degeneration, moderate destruction of the Islands of Langerhans but no acute pancreatitis.

Either a fistula which will not heal following marsupialization may be anastomosed or the procedure may be carried out as a primary treatment. Surgical methods may well include the anastomosis of the cyst to a single limb of jejunum with lateral anastomosis of the proximal segment after the method of Roux which has been popularized by Whipple in the treatment of malignancies of the pancreas. Cysto-jejunostomy is well worthy of further trial since it has been remarkably free from mortality and has cured a high percentage of cases when employed.

BIBLIOGRAPHY

1. Walters, Waltman, Cleveland, Wm. H., Surgical Lesions of the Pancreas, A Review. Arch. Surg. Vol. 42, 819-838 May 1941.
2. Whipple, A. O. Pancreatic Cysts, Nelson Loose Leaf Surg. 1937 Vol. 5, 425.



Autopsy specimen showing spleen, pancreas, and the anastomosed loop of jejunum. The capsule of the pancreas has been incised, exposing the duct-like opening into the jejunum at the site of anastomosis. The probe has been inserted through this opening into the jejunum.

3. Berk, J. E. Tumors and Cysts of Pancreas, Gastro-enterology, 3 Vol., Vol. III by H. L. Bockus, W. B. Saunders, Phil. 1946.
4. Judd, E. S., Mattson, H., and Mahorner, H. R. Arch. Surg. 1931 22:838.
5. Lahey, F. H., and Lium, R.; Cure of Pancreatic Fistula by Pancreatojejunostomy; Report of Case with Review of Literature. Surg. Gynec. & Obst. 64:78 (Jan.) 1937.
6. Adams, Ralph & Nichijima, Randal A. Surgical Treatment of Pancreatic cysts. Surg. Gynec. & Obst. 1946; 83 181-187 Aug.
7. Chesterman, J. T. Brit. J. Surg. 1943 34:234.

THE AFFINITY OF THE NERVE FIBER FOR TETANUS TOXIN

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It has been known for many years that certain viruses and specific toxins are attracted by the neurons of the central nervous system. An outstanding example is the polio virus. This attraction has brought forth considerable research. Howe and Bodian[1] have demonstrated experimentally that there is a specific part of the neuron that is involved in bringing the polio virus to the central nervous system. Their experiments proved conclusively that the axis cylinder of the nerve fiber was the responsible agent in this conduction. These investigators used monkeys and chimpanzees for their work. They first showed that by exposing a somatic or visceral nerve and inoculating the cut end with various strains of poliomyelitis virus the animals were either stricken with severe paralysis or death ensued after the proper incubation period. The nerves experimented upon were either the sciatic, the greater splanchnics, the vagus or the glossopharyngeal. The olfactory also showed this same conduction. The procedure proved that the nerve fiber was the responsible agent. It did, however, show what part of the nerve fiber was doing the conduction.

These investigators devised the following technique to show that the axis cylinder was the active part. By exposing one of the above mentioned nerves close to its origin they were able to freeze a small segment with carbon dioxide snow. This freezing temporarily shut off the blood supply along the fiber. The neurolemma sheath was not greatly damaged. The axis cylinder degenerated beyond the lesion after a period of perhaps two or three weeks. Exposing the nerve more peripherally after approximately three weeks and inoculating the cut end with the polio virus the animal suffered no ill effects except a temporary paralysis due to the cut nerve which later partially regenerated. Knowing that the blood supply to the nerve is intact and that the neurolemma sheaths are normal, the only structural unit that is absent is the axis cylinder with its myelin. These experiments of Howe and Bodian have opened up avenues of investigation for a more thorough understanding of the nature of approach that certain viruses and toxins take in reaching the central nervous system.

For several years there has been a controversy concerning the mode of entrance of tetanus toxin into the central nervous system. The concensus of opinion now seems to favor the route by way of a peripheral nerve. The other school of thought holds that tetanus toxin can come only to the neurons of the central nervous system by way of the blood stream. Recently Friedmann[2] has shown that there are many toxins unable to pass from the capillaries of the central nervous system into neurons because of a special function of the endothelial lining of these capillaries. He speaks of this natural phenomenon as the blood-brain barrier. We have in the central nervous system capillaries which prohibit certain substances entering brain tissue. Tetanus toxin is one of these substances. We know that tetanus toxin reaches the central nervous system by peripheral nerves. The exact portion of the nerve fiber which facilitates this progression is therefore the topic of this paper. Our interest in this problem has a twofold purpose: firstly, a practical one which will enable a clinician to know definitely that tetanus toxin does travel up the nerve fiber instead of going by way of the blood stream; secondly, a purely scientific one, namely to find out facts about nature. Both interests are motivated by curiosity. If then we can add a little knowledge concerning the physical and chemical composition of protoplasmic structures in the form of neurofibrillae we have gained slightly in our slow progress of understanding nature.

We shall show that the neurofibrillae in the axis cylinder are the agents responsible for the transport of tetanus toxin to the cell bodies of peripheral nerves. It is assumed that the toxin takes the route of the motor roots instead of the sensory roots. This, however, is only an assumption. We approached this problem to show that the neurofibrillae, and they alone, allow the tetanus toxin passage along the nerve fiber. Recent advances in the study of the nature of neurofibrillae point to the fact that they are long chains of protein molecules. These neurofibrillae are highly specialized fibrils. All ground

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substance of protoplasm seems to be made up of properly oriented asymmetric micelles. These micelles become highly specialized into fibrils. In the axis cylinder of nerve fibers they are easily seen in developing nerve cells in tissue culture. They may be dissected and removed with micro needles under the microscope.

In our experiments we used guinea pigs which as we all know are very susceptible to tetanus toxin. We carefully exposed the sciatic nerve near the knee joint in eight guinea pigs and inoculated the central stump with tetanus toxin which had a strength of 75,000 m.l.d./cc. This inoculation was accomplished by dipping an applicator stick into the tetanus toxin and holding it for five minutes against the central stump. The stick did not carry any of the toxin except that which saturated the end of it. The cut surface of the sciatic was slightly smaller in diameter than the applicator stick so that each nerve fiber was completely covered in its cross section. This means that each axis cylinder was in contact with a certain amount of tetanus toxin. Within 72 hours all eight guinea pigs were dead. Their death in each case was due to tetanus, the symptoms of which were those of the local tetanus type. The first sign of tetanus was a stiffness in the opposite limb. There then was the progressive advancement up the cord, the lower back, thoracic level and finally the cervical portions and head regions were involved. In all cases the operative procedure was carried out under strict aceptic conditions. Extreme care was taken to place the tetanus toxin only on the central cut end of the nerve. To our knowledge at no time did any of the tetanus toxin drop into the wound. This ruled out other pathways.

The sciatic nerve in each of eight other guinea pigs was exposed and frozen with CO_2 snow as near centrally as conveniently possible. Very fine wedge shaped pieces of dry ice were used. In some cases it was necessary to use two or more pieces before we were sure that a 2mm. stretch of nerve was completely frozen. As already indicated, freezing will produce a degeneration of the axis cylinder without interference with the blood supply later. This technique produces the same results as cutting the nerve but allows a complete physical union of all parts of the nerve fiber with the complete loss of two constituents, namely, the axis cylinder and its myelin sheath.

Sixteen days later these animals with frozen nerves were reopened and the sciatic nerve was severed and inoculated as described above. Four days later two animals died of an undetermined cause but showed no signs of tetanus. The other six animals were sacrificed on the sixth day having shown no signs of tetanus. The usual incubation period in the guinea pig is slightly less than two days. The toxin failed to reach the central nervous system because of the degenerated axis cylinders in the sciatic nerve.

Another series of eight guinea pigs was inoculated in like manner without freezing. In this case they were immunized in the following manner: Four were given .5cc antitoxin subcutaneously ten minutes previous to the inoculation; the other four received 0.1cc of the antitoxin into the sciatic central to the inoculation. All eight of these animals were sacrificed fourteen days later showing no sign of tetanus. We have made no attempt to allow complete regeneration after freezing to learn if the regenerated nerve will carry the toxin.

In an attempt to determine how fast the toxin travels along the neuroaxis the following information was obtained. The central stump of the sciatic averaged 57mm. The average time from inoculation until the opposite limb showed signs of tetanus was seventeen hours. If we assume that the toxin travels uniformly along the axis cylinder it would then travel at an average of 3.35mm per hour. The exact nature of the ascent of the toxin along the nerve fiber is unknown. In the case of polio virus we can assume that there is actual growth of the virus particles. This is not true of tetanus toxin.[3]

REFERENCES

1 Howe, H. A. and Bodian, D. Neural Mechanisms in poliomyelitis. New York: Oxford University. Press, 1942.

2 Friedmann, V. Physiological Reviews, 1942, Vol. 22, pp. 125-145.

3 Roofe, Paul G. The Role of the Axis Cylinder in Transport of Tetanus Toxin. Science, Vol. 105, pp. 180-181, 1947.

Industrial Conference on Alcoholism

The first industrial conference on alcoholism will be held at the Morrison hotel, Chicago, on Monday, March 15, 1948, it has been announced by Dr. Anton J. Carlson of the University of Chicago, chairman, and James H. Oughton, Jr., director of the Keeley Institute, Dwight, Illinois, co-chairman. The conference is designed to bring to the attention of industry leaders throughout the country facts pertaining to the problem of alcoholic employees and to discuss ways and means of overcoming the problem.

"Alcoholic employees now cost industry almost one billion dollars per year, according to one estimate," Dr. Carlson stated. "In most cases, when an employee is found to have alcoholic tendencies, he or she is usually fired. What industry does not realize is that they have invested time and money in these employees and that it is not necessary to fire them. If proper measures are taken, most of them can be rehabilitated and when this is accomplished, they make the best possible type of employee."

Prominent medical authorities will speak at the morning, luncheon and afternoon sessions. Reservations may be made through the Chicago Committee on Alcoholism, 816 South Halsted, Chicago 7, Illinois.

A DIFFERENT TYPE OF STOMACH TUBE

C. Y. Thomas, Jr.*

Kansas City, Missouri

The object of this article is to present another type of stomach tube which, I feel, is an improvement over the types now used.

The method of making the tube is as follows: the balloon end of a Miller-Abbott tube is cut off and the remaining length is cut into two segments. Then each segment is made into a stomach tube as follows: to one end is attached the metal tip from a Miller-Abbott tube. Then six holes spaced about an inch apart are cut in the larger suction compartment of the tube, and in the smaller compartment (which is ordinarily used for blowing up the balloon in a Miller-Abbott tube) three holes are cut, spaced about two inches apart. The Y-shaped attachment of a Miller-Abbott tube is attached to the opposite end of the tube, which is then marked off in the usual way to indicate the level of the cardia, pylorus, etc. (See diagram Number I)

The tube is used as follows: it is put into the stomach in the same manner as usual, and the suction side is attached to a suction apparatus. The other side of the tube, through which the balloon is inflated in an ordinary Miller-Abbott tube, is attached to the tubing coming from a bottle of irrigating solution. A Murphy drip is included in the series. The solution is then allowed to drop at the rate of 15-20 drops a minute and the suction is started. (See diagram Number II.)

Thus, the solution is continually running down through one side of the tube and is being aspirated through the other side. The tube does not plug because the secretions of the stomach, swallowed mucus, blood clots, etc., are being diluted before entering the suction side of the tube. We have had one of these tubes down for 10 days and 14 hours without becoming plugged once. The type of solution used in the drip bottle may be varied to suit one's fancy, but we have had excellent results with non-sterile normal saline or ordinary tap water. When the solution runs low, the nurse refills the bottle. This type of tube has been used for all types of suction including that following cholecystectomy, gastroenterostomy, etc.

The advantages of such a tube are that it makes constant irrigation of the stomach possible without the necessity of either syringe irrigation or requiring the patient to drink water frequently; and it is less likely to become plugged since the dilution and irrigation is constant.

The tube also may be used to feed the patient. We have placed solutions of the amino acid hydrolysates, glucose, and vitamins in the drip bottle, and

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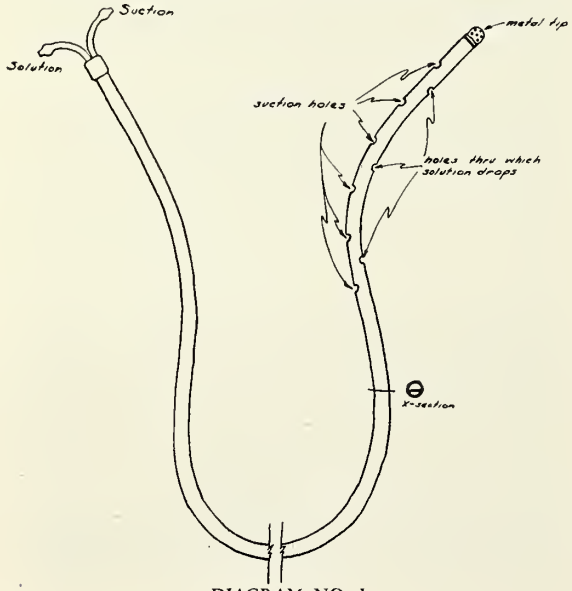
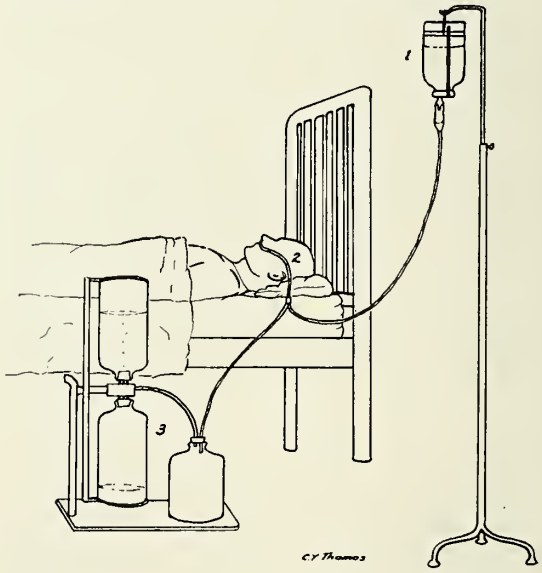


DIAGRAM NO. I



1. Bottle of solution with Murphy drip

2. Tube as described in article

3 Suction apparatus

DIAGRAM NO. II

by clamping the suction side of the tube, have allowed the solution to enter the patient's stomach to be absorbed in the intestinal tract. The solution was allowed to drop in at 20-40 drops per minute. If the patient felt as though he might vomit, the suction was immediately started and the solution in the stomach was evacuated. By experimentation the nurse can find out how fast the fluid can run into the stomach and still be tolerated by the patient. We have put down 2000-3000 cc. of fluid per day by this method—even when the patient was sleeping, comatose, etc.

The tube may also be used for gastric lavage in cases where the patient has ingested acid, alkali, toxic overdosage of drugs, etc. It is put through the nasal passageway and into the upper end of the esophagus. Then the irrigating solution is started and the tube is allowed to pass slowly into the stomach where lavage can be carried out as long as desired. An antidote may be placed in the irrigating solution which, in this case, is allowed to flow as rapidly as possible.

In summary, a method for making a different type of stomach tube has been presented. The tube has three distinct advantages over those commonly in use: (1) it will not become plugged, (2) it is a convenient way to give the patient fluids and nourishment, and (3) it may be used for gastric lavage.

TUMOR DIAGNOSTIC CLINICS IN KANSAS HOSPITALS

In January of 1947, the Committee on Control of Cancer launched a program, the goal of which was the establishment of Tumor Diagnostic Clinics in all Kansas hospitals meeting the standardization requirements of the American College of Surgeons. Minimum standards for such Tumor Diagnostic Clinics were set by the Committee. The program received the approval of the Council of the Kansas Medical Society. The Kansas Division of the American Cancer Society offered to pay each Tumor Clinic meeting the minimum standards, $500 at the end of two months of successful operation. Since, further funds have been budgeted by the Cancer Society so that each of these Tumor Clinics may be paid $500 at the beginning of their second year of operation.

Seventeen Kansas hospitals have met these minimum standards and have been in operation for two months or longer. At least one other Tumor Clinic has been organized. The list of these 18 hospitals is as follows:

Hatcher Hospital, Wellington
Mercy Hospital, Parsons
William Newton Memorial Hospital, Winfield
St. Mary's Hospital, Winfield
St. Francis Hospital, Wichita
Newman Memorial Hospital, Emporia
St. Margaret's Hospital, Kansas City
St. John's Hospital, Salina
Providence Hospital, Kansas City
St. Joseph's Hospital, Concordia
Susan B. Allen Memorial Hospital, El Dorado
Asbury Hospital, Salina
St. Anthony's Hospital, Hays
Bethany Hospital, Kansas City
St. Mary's Hospital, Emporia
Wichita Hospital, Wichita
Wesley Hospital, Wichita
Mercy Hospital, Independence

These 18 hospitals represent a little less than half of the hospitals eligible to participate in the program. Approved clinics existed at the Sedgwick County Hospital and at the University of Kansas Medical Center prior to the launching of this program so that now there are at least 20 Tumor Clinics in the state of Kansas. It is hoped that other eligible Kansas hospitals will organize Tumor Clinics in this coming year.

Prepared by the Committee on Control of Cancer

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PRESIDENT'S PAGE

THE FEDERAL COURT CASE

Four previously enjoined osteopaths filed an injunction suit against the Governor and the Attorney General of the State of Kansas to prohibit them from enforcing the statutes of our state, as interpreted by the Supreme Court of Kansas, relative to limiting their practice to the principles as taught in their schools. Now three more osteopaths, who have not previously been enjoined, have entered the case, proposing to speak for all of their profession. Their real purpose is to practice medicine and surgery in all of its branches.

Our position is simply that it is ludicrous to suppose that a doctor can be produced by passing a law and that if these men want to broaden the scope of their practices they should go to a recognized Grade A medical school and receive a degree and then a license, just as every member of our profession has done.

The importance of this litigation to every doctor, as well as every citizen, not only of this state but the whole United States, is that it challenges the right of a state to prescribe the qualifications of those who practice within its borders.

The Attorney General and a special assistant, appointed for this case, are cooperating fully with the attorney for the Kansas Medical Society. It is their desire to present the case in all its ramifications so that the court may be amply provided with sustaining authorities upon which to base its decision.

The medical profession is sincerely hopeful that the outcome will be such that the public will not be deprived of the advancements of medicine and surgery during the past forty-eight years.

L. L. Nelson

President.

EDITORIALS

Federal Health Legislation

From present indications it appears that this will be the year of decision with reference to a federal health program. Not that this will be the last decision on that subject; it will rather be the first. Until now various proposals have been studied and discussed in committee. This year, however, it appears that one measure or more will reach the floor of Congress for discussion and vote.

This is based on information, believed to be reliable, to the effect that the new Wagner bill and the Taft bill are scheduled for hearing even before this issue of the Journal is published. Present indications are that in a spirit of compromise the committee probably will reject the Wagner bill and recommend the Taft bill for passage. It has been predicted that action with reference to the Taft bill will have been completed by April 30. The next 90 days, therefore, will probably tell the story of whether a national health program is actually on the way or whether it can be postponed indefinitely.

In spite of publicity to the effect that the medical profession has endorsed the Taft bill, it is our impression that the endorsement given by the House of Delegates of the A.M.A. was not without reservation. The Taft bill was approved in principle as having eliminated major objections found in the Wagner bill, but there remain many questions that have not yet been satisfactorily answered.

Whenever a summary of complicated legislation is attempted in one sentence, that summary can never be entirely accurate. To fully explain these measures would require a great deal of space. Therefore, this analysis must be accepted as a comparison of the principle of the two bills rather than a description of their details.

The Wagner bill places virtually everyone under the program and administers its operation from Washington. The Taft bill offers similar benefits but makes appropriations to states and adds that every state shall impose a means test before eligibility can be approved. Wagner makes the program compulsory for everyone; Taft offers financial aid to those who cannot afford to pay for their own medical care. Wagner proposes to operate the program through the Federal Security Agency in Washington; Taft by a single designated agency in each state. Wagner sets up a system for paying physicians directly through the central fund; Taft provides that appropriations may be used to enroll needy persons in non-profit medical care plans.

There is much more to each of these bills pertaining to hospital care, medical education, the location of physicians, dental care, research, etc. It is still believed, however, that the above comparison is reasonably accurate. There is little question but that the Taft bill is less revolutionary than the Wagner bill, but it appears equally certain that the passage of the Taft bill is just as surely, if not as long, a stride toward federal domination of the practice of medicine in the United States.

Outstanding General Practitioner

Dr. Archer C. Sudan of Kremmling, Colorado, was presented a gold medal by the A.M.A. as the outstanding general practitioner in the United States. This was perhaps the highlight of the midwinter meeting in Cleveland and one of the finest moments medicine has experienced in a long while.

For many years Dr. Sudan has attended the meetings of the House of Delegates of the American Medical Association, and has endeared himself to all. We recall many visits with Dr. Sudan and his genial, kindly manner. It is easy to understand, therefore, that his selection would be popular among the physicians in the United States. His popularity with the press has been evidenced by the wide publicity that has been given his selection for this honor.

On the basis of his service, it is also easy to understand his selection. Dr. Sudan has been president of the Colorado State Medical Society and has held numerous important positions in the service of organized medicine. The nature of his own practice distinguishes him from many other general practitioners in America. Kremmling is high in the mountains where winter is severe and roads over mountain passes are hazardous. He serves regularly, and with no thought of being spectacular, an area which, if we remember correctly, embraces more than 1,000 square miles. In temperatures of 50 degrees below zero, he has traveled by bobsled when other means of transportation is out of the question. Upon being notified of this honor he was 67 miles from his home on a house call, and it took him 10 hours to reach Denver, where he boarded a plane for the first time in his life and went to Cleveland.

It is characteristic of Dr. Sudan that he received this honor modestly and said that he accepted it not for himself but in recognition for the work done by all general practitioners in the country. It is characteristic of him also, in following representatives of the government of the United States who spoke in various terms of federal aid for medicine and hospitals, that Dr. Sudan pointed a finger into the microphone for emphasis and said, "We want a hospital in our area too, and we will have one. In fact we are saving money now for such a project. When

completed, it will be paid for by our own money and it will be ours."

We are delighted in the selection of Dr. Sudan for this honor, and in behalf of the Society and each member wish to extend to our friend and neighbor our heartiest and most sincere congratulations.

Public Relations in Finney County

With increased emphasis on medicine's public relations at the national and state level, little thought has been directed to the problem in local groups. However, one component unit of the Kansas Medical Society, the Finney County Medical Society, has begun a publicity program that will continue through the year 1948.

The Finney County Society has contracted with the largest newspaper in that locality, the Garden City Telegram, for advertising space once each week, in each Saturday issue, through the year. Two members of the society have accepted the responsibility of preparing copy for the space.

To begin the series the society announced its plan for weekly publicity, introduced the membership, and outlined the type of information it plans to present. No schedule was set up for the year, as it was felt that pertinent material could best be prepared immediately before time of publication, to treat any medical subject that local conditions might indicate. In this way the society can correlate its publicity to timely health hints, vaccination programs, chest x-ray surveys, and general instruction on disease.

Lay publications have found their readers greatly interested in health matters, and have adopted a policy of printing articles, or series of articles, on different diseases and conditions. Many patients have presented themselves to their physicians for examination as the result of this type of publicity. Some, of course, receive false impressions from articles that are poorly prepared or too technical for lay readers, but the good derived from such education greatly overbalances the few instances of misconception.

Since the public is interested in information on preventive medicine, physical danger signals, cause and effect of disease, and indications for seeking medical attention, it should be provided with practical knowledge prepared for publication by members of the medical profession. Members of the Finney County Society have recognized the need for this material and by supplying it in that county will show their genuine interest in the health of their patients.

Plan for Rural Medical Service

A novel plan for educating doctors to serve rural areas of Illinois was formed recently by the Illinois State Medical Society and the Illinois Agricultural Association, cosponsors. The plan is a part of a broad program for establishing regional health councils, recruiting doctors and nurses and building hospitals.

The medical training plan is based on a fund to be established by a contribution of $50,000 each by the two organizations. The money will serve as a revolving loan bank from which loans will be made to accepted medical students at the rate of $1,000 a year to a maximum of $5,000 per student.

Students seeking loans under the plan must conform to certain requirements, chief of which is that the student must agree to return to a town of less than 5,000 population in his home county and practice general medicine, not a specialty. He must be a native of the county from which he applies, unable to finance his training but free of debt. He must have the recommendation of his local medical society and local farm bureau, must pass aptitude tests of the University of Illinois medical school (or the equivalent), and must take his medical training in an approved school.

The student will agree to repay money advanced from the fund in five annual payments after he begins to practice medicine, at two per cent interest. Should he fail to keep his agreement to practice in a rural area, the interest rate will be seven per cent. The loan will be protected by a ten-year term life insurance policy for $5,000, payable to the Farmer and Doctor Loan Fund Board which will administer the fund. In addition, each student must agree to repay the loan and accrued interest at once if he abandons his medical training.

The financing plan will make it possible to accept four new students each school year beginning in the fall of 1948 through 1952, so that by 1957, 20 students will have been financed from the original fund. However, by 1951, the 1948 group will have begun to repay their loans, so this money can be made available for additional students, and the whole sum can be turned over repeatedly as long as needed.

The program is believed to be the first instance of such cooperation between farm and medical groups, to solve their own problems with their own funds.

Residency in General Practice

The University of Kansas Medical Center, in cooperation with the other three hospitals in Kansas City, Kansas, Bethany, St. Margaret's and Providence, has established a one-year residency in general practice to begin July 1, 1948. Six months of this residency will be at the Medical Center and two months each will be at the other hospitals.

Two months will be spent in each type of service, as outlined below:

Minor surgery, emergency room and x-ray—Medical Center.

Laboratory service—Medical Center. This will include hospital patients of Dr. Lee H. Leger and Dr. Sloan J. Wilson, special hematology with Dr. Wilson to include sternal punctures, supervital technic, special blood work on out-patients and in-patients, and attendance in out-patient hematology clinic.

Eye, ear, nose and throat—Medical Center.

Internal Medicine—Bethany hospital. Dr. William H. Algie, director of service.

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Obstetrics and Gynecology—Providence hospital. Dr. H. M. Floersch, director of service.

Applications should be filed with Charles B. Newell, Hospital Administrator, University of Kansas Medical Center, 39th and Rainbow, Kansas City 3, Kansas.

Community Blood Bank

Establishment of a community blood bank in Topeka has been authorized by the Shawnee County Medical Society and a fund of $1,500 was appropriated for this project. Actual operation was scheduled to start February 2.

Blood from the bank is to be made available to patients at Christ's, St. Francis, Stormont and Santa Fe hospitals. Later non-hospitalized patients of members of the medical society and patients at Winter V. A. hospital will be included.

Three plans for payment have been approved. First, the patient receiving the blood may pay $3.50 and have two relations or friends donate a pint of blood each to the bank. Second, the patient may pay $7.00 and have one relative or friend donate to the bank. Third, the patient may pay $25 and provide no donors. All donations under the first two plans must be made within 72 hours after the patient receives the transfusion.

89th ANNUAL SESSION, MAY 10-13, 1948

Wichita, Kansas

Members of the Sedgwick County Medical Society, who will be hosts to the Kansas Medical Society at its 89th annual session at Wichita, May 10-13, are now at work preparing a meeting that will be outstanding. The program committee is completing an impressive list of speakers, and other groups are working on arrangements, commercial and scientific exhibits, entertainment, and housing.

Details of the program are yet to be worked out, but in general the session will follow the pattern of those of past years. Scientific programs will be presented on Tuesday, Wednesday and Thursday of the week, and there will be entertainment for sportsmen on Monday. The House of Delegates will hold two meetings during the session, Kansas Physicians' Service will have its annual meeting, and other groups will hold business sessions.

All scientific sessions and exhibits will be at the Forum, and other events will be scheduled at Wichita hotels. The complete program, with information on location of events, will be published in the April issue of the Journal.

Nine guest speakers, widely known in medical and surgical fields, have accepted invitations to address the scientific sessions, and two others, whose replies have not yet been received, have also been invited. Listed below are those who have consented to speak. The titles of their papers are not yet known, but the general topics are listed to give the membership of the Kansas Medical Society an outline of the subjects they will hear discussed.

Baldwin L. Keyes, M.D., Philadelphia, Pennsylvania—Management of Neuroses
Waltman Walters, M.D., Mayo Clinic, Rochester, Minnesota—Surgery
Arild E. Hansen, M.D., Department of Pediatrics, University of Texas School of Medicine, Galveston, Texas—Rheumatic Fever
Henry M. Winans, M.D., Dallas,Texas—Medical Management of Purely Nervous Patients
L. S. Goodman, M.D., Department of Pharmacology, University of Utah, Salt Lake City—Therapeutics
A. Carlton Ernstene, M.D., Cleveland, Ohio—Heart Disease
T. Leon Howard, M.D., Denver, Colorado—Urology
Edward B. Tuohy, M.D., Georgetown Medical Center, Washington, D.C.—Anesthesiology
Lawrence R. Boies, M.D., Minneapolis, Minnesota—Ear, Nose, Throat

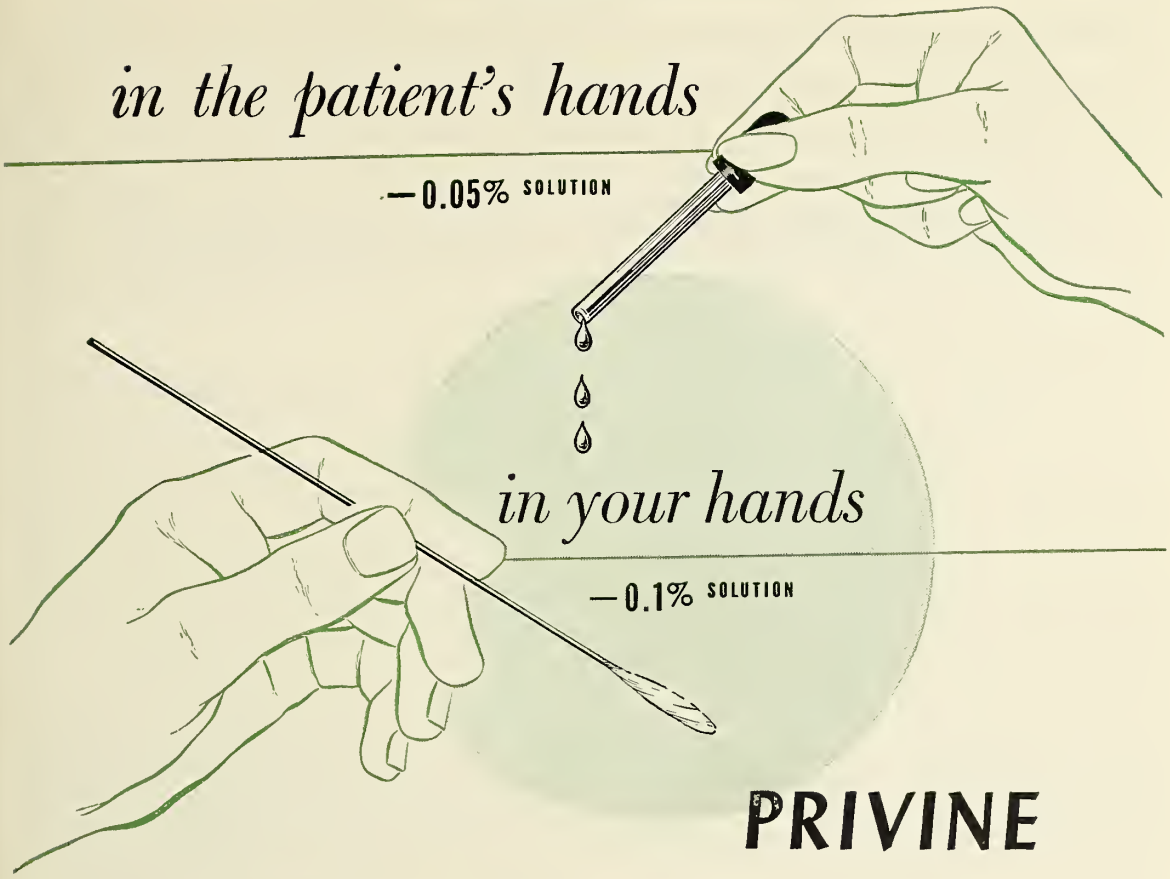
A speaker on ophthalmology and one on surgery are those whose replies have not yet been received.

The Woman's Auxiliary to the Kansas Medical Society will meet at the same time the doctors are in session, and the Kansas Medical Assistants' Society will hold its annual session on May 9 and 10. The program for each meeting will be published in the April issue of the Journal.

All members planning to attend the 89th annual session are urged to make hotel reservations early. It is not too early to do so now. The Sedgwick County Society Committee on Housing is making arrangements to take care of all who attend the session, but those who make reservations early will secure the exact accommodations they want.

A great many members of the Sedgwick County Medical Society are taking an active part in preparations for the meeting, and each committee has met several times. The following Wichita physicians have been named chairmen of the various committees:

General Chairman—A. L. Ashmore, M.D.
Program—George F. Gsell, M.D.
Arrangements—A. E. Hiebert, M.D.
Commercial Exhibits—George E. Milbank, M.D.
Reception—J. P. Berger, M.D.
Publicity—Louis A. Donnell, M.D.
Scientific Exhibits—Harry O. Anderson, M.D.
Woman's Auxiliary—Donald P. Trees, M.D.
Housing—Bruce P. Meeker, M.D.
Entertainment—Clyde W. Miller, M.D.



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Rejections Under Selective Service As An Argument for Compulsory Health Insurance*

All arguments in favor of socialized medicine, federal control of medical practice, and so-called "health insurance" seem to take off from the same springboard, the supposedly deplorable state of physical fitness revealed by Selective Service examinations. A memorandum of March, 1946, issued by the Bureau of Research and Statistics of the Social Security Board states that "of 16 million youths examined, fully half were unfit for military service" and goes on to suggest that one-half to two-thirds of the defects causing rejection "could have been prevented or rehabilitated with timely care." This indictment of the private practice of medicine in the United States has been taken up by labor leaders, social planners, legislators, and, most recently, by Bernard Baruch.

Medical men, particularly those who carried on the tremendous work of the Selective Service examinations and those who saw the results in the armed services, have known all along that these figures were being perverted and that wholly unwarranted conclusions were being drawn from them. However, statistics cannot be refuted by opinions. At the National Conference of the Professions, sponsored by the National Physicians' Committee, on September 29 and 30, 1947, in Chicago, a statistical answer was supplied which should be in the hands of every physician, however dimly he is aware of the accomplishments of his profession or however vaguely he resents the untruths of the widespread propaganda directed against the private practice of medicine. A large share of this rebuttal was contained in a reprint of the testimony given by Maurice H. Friedman, M.D., before the Senate Committee on Labor and Public Welfare. Dr. Friedman is an internist practicing in Washington, D.C., has been an assistant professor of physiology at the University of Pennsylvania Medical School and has done research work in the physiology of dive-bombing as well as serving as a consultant with the A.A.F. during the war. His statement covers over 40 mimeographed pages, and an attempt will be made here to summarize his argument for those who do not have access to the complete reprint.

Between December 7, 1941, and December 31, 1943, the draft boards selected 10 million men for examination, and 3,600,000 were rejected, i.e., a rejection rate of 36 per cent. To assume that this is representative of the young adult male population of the United States is entirely unwarranted, however. As Dr. Friedman points out, during this same period 2,700,000 men voluntarily enlisted in the armed forces, and their inclusion in the draft figures would have raised the total to 12,700,000 and lowered the rejection rate to 28.4 per cent. In addition, after these volunteer enlistments, 37.5 per cent of the residual available manpower was deferred because of essential occupation or dependency. How these men would have fared on draft examination cannot be determined, but certainly they were healthy enough to meet one or both of the essential demands of civilization, i.e., that they were in productive work or were heads of families.

Thus, the primary argument of those in favor of compulsory health insurance is shown to be a false assumption. From this false premise, however, they continue with further unwarranted conclusions.

It has been obviously absurd to claim that failure to be acceptable for the strenuous activities and intelligent, cooperative work of the armed forces was in itself a stigma of failure in modern life. This is rather like assuming that every boy unable to make the varsity team was not fit to remain in the university. Dr. Friedman proves this inconsistency by analyzing the causes for rejection, and in addition, calls attention to the varying standards in certain regards which meant that at one time a man was considered unfit for combat duty and later was considered acceptable in spite of illiteracy, syphilis, dental defects, or deficient vision. He next attacks the claim that the causes for rejection can be laid at the door of private medical practice. He says flatly "any statement to the effect that half to two-thirds of the defects are preventable or remediable is utterly false."

One of his first steps is to discard all rejections for venereal infection as non-medical causes. His reason for this is that syphilis and gonorrhea persist at high rates in all military establishments in spite of free medical care, the presence of more physicians per 1000 patients than exists under any non-military plan of treatment, and vigorous campaigns by the Army and Navy against venereal disease. He apparently reasons correctly that free, compulsory medicine has had its inning in this regard and has scored a goose egg. Adding rejections for illiteracy and mental deficiency together with some categories listed as "non-medical" to the rejections for syphilis and gonorrhea, he accounts for over 21 per cent of all rejections.

He next scores certain rejections which are not preventable or remediable by means available to the medical profession at present. These categories include mental disease, cardio-vascular disorders, musculo-skeletal defects, neurological disorders, defective vision, deviations from normal weight, endocrine disorders, asthma, flat feet, peptic ulcer, nasal defects, and nephritis. The percentages vary according to the period analyzed but the total is approximately 45 per cent of all rejections. Together with the non-medical causes they account for about two-thirds of all rejections.

Tuberculosis, causing about 3½ per cent of all rejections, is listed as possibly preventable. Hernia, accounting for about 7 per cent of rejections, and certain other remediable (but not preventable) causes are then listed. They total slightly over 10 per cent. Deafness, otitis media, and dental defects, accounting for about 5 per cent of the total, are shown as preventable or correctible. The remaining 12 per cent (approximately) are too vaguely defined for analysis.

Thus, in summary, he is able to show that two-thirds of the rejections were caused by conditions beyond the present power of the medical profession to prevent or correct whether under private practice or by means of any conceivable compulsory plan. About 20 per cent of the rejections could be influenced by medical care, assuming that every person so afflicted was willing to seek and accept care, including major surgery, that he could have undergone such care, and that the recommended procedures would have been 100 per cent effective in every case.

Another claim often made is that the negro race had a high percentage of rejection because of poor medical attention based on racial barriers and economic factors. Analysis of Selective Service data by Dr. Friedman shows that this high rate of rejection was entirely due to educational and mental deficiency, venereal disease, and high blood pressure—none of which the practice of medicine seems able to control, and that "every other recorded defect was less frequent in the negro," in spite of his limited access to good medical care.

Dr. Friedman then goes on to discuss very ably other factors involved in compulsory health insurance, such as

*Prepared by John Porter, M.D., Concordia, Kansas, at request of Council of Kansas Medical Society.

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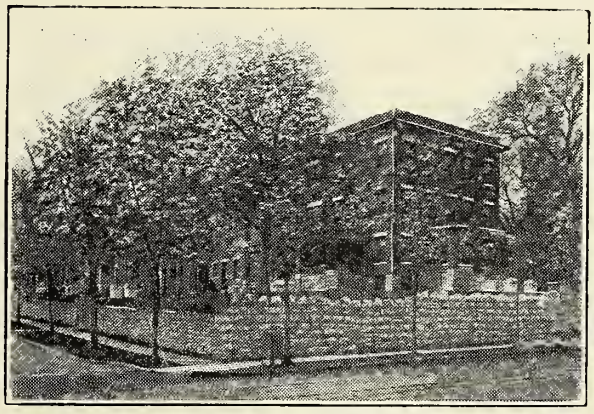
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medical facilities in rural areas, the supposed economic barrier to medical care, the incidence of illness at various economic levels, etc., and is able to refute many of the glib claims advanced by proponents of federal medicine. He concludes that "the plan for National Compulsory Health Insurance carries distinct threats to the freedom, not only of physicians of this country, but to the freedom of every individual"—and that contrary to many claims made, "the health of this Nation is not in such desperate state that we must rush to surrender complete control of our medical care into the hands of an all-powerful federal agency."

The following tabulations are slightly condensed from Dr. Friedman's analysis of data presented in Medical Statistics Bulletins No. 2 and No. 3, showing the causes for rejections under Selective Service. Because of changes in the basis for rejection, it is necessary to list two columns of percentage rejections.

CONDITION:	Per Cent of Total Rejections: Apr. 1942-Mar. 1943	Apr. 1943-Dec. 1943
Illiteracy and Mental Deficiency	10.70	14.20
Syphilis	9.40	3.70
Gonorrhea	0.90	0.30
"Non-Medical"	0.70	3.30
Total Beyond Medical Control	21.70	21.50
Mental Disease	12.50	17.00
Cardio-vascular Disease, inc. Hypertension	8.30	7.00
Musculo-Skeletal Defects, inc. Arthritis, Amputations, Congenital and Traumatic Defects	6.87	8.46
Neurological Disease, inc. Epilepsy and Post-traumatic Syndrome	4.10	4.02
Defective Vision	3.32	2.94
Underweight and Overweight	2.32	2.10
Endocrine Disorders, inc. Absence of Testicle	1.35	1.06
Asthma	1.33	1.30
Pes Planus	1.10	2.60
Peptic Ulcer	1.10	1.20
Nasal and Sinus Defects	0.92	0.87
Nephritis	0.32	0.29
Total Medical Defects Not Preventable or Remediable	43.53	48.84
Tuberculosis	3.70	3.00
Possibly Preventable	3.70	3.00
Hernia	7.80	6.30
Varicose Veins	1.30	1.10
Undescended Testicle	0.60	0.63
Neoplasm, inc. Pilonidal Cyst	0.60	0.80
Hemorrhoids and Other Rectal Conditions	0.50	0.50
Kidney Stone	0.38	0.31
Varicocele	0.11	0.22
Tonsils and Other Throat Conditions	0.10	0.10
Nasal Obstruction	0.05	0.20
Total Correctible	11.44	10.16
Otitis Media	3.16	2.90
Teeth	2.10	1.40
Deafness and Defective Hearing	0.64	0.44
Total Preventable or Correctible	5.90	4.74
Undetermined or Unspecified Causes	12.91	11.16

EXECUTIVE OFFICE

Standards for Hospitals

New Kansas laws with reference to hospital licensure went into effect on July 1, 1947. The Hospital Advisory Council, of which J. L. Grove, M.D., Newton, is chairman, after many meetings and careful study, recently submitted a tentative outline covering minimum standards that the Council plans to adopt. These outlines were mailed to administrators and superintendents of all hospitals in Kansas. Believing that knowledge of these regulations will be of interest to physicians, it is suggested that the medical staff review the standards and discuss with administrators of hospitals any points of particular importance.

Two pamphlets have been issued. The first describes facilities that should be provided in all hospitals and outlines in each instance minimum standards that shall apply with reference to equipment, food, records, etc. The second pamphlet is a schedule of points that will be given for the various items under consideration. After an examination is made the hospital will be graded according to the total number of points received. It will be noted that smaller hospitals will be qualified on a smaller total than larger hospitals. By way of example, hospitals having from four to 25 beds are required to make a total of 300 points. Hospitals with 151 to 300 beds will be required to make a total of 600 points. In the proposed outline are listed a possible 771 points, arranged in seven different sections.

The first has to do with the site, including the accessibility of the hospital, its public facilities, environment, etc., for which 60 points may be obtained. In 18 different categories values are given in accordance with the importance of the item, and range from two to 11 points. By way of example, fire protection can receive a maximum of 11 points. Sidewalks leading to all entrances of the hospital would be worth a maximum of two points.

The other main sections are building, organization, facilities, service department, employees' facilities and general information. Under organization, eight points are available, if the medical staff is organized and operating under a constitution and by-laws, and if it is given responsibility for all techniques involving professional care of patients. A formula has been suggested for obtaining a figure to show the number of occupied beds in relation to the total staff. The formula may be obtained by looking over the pamphlet, but it will be of special interest to note the wide range of points. For instance, hospitals having .6 staff per occupied bed receive three points. These are graduated upward until 25 points will be given to hospitals having 1.2 staff per occupied bed, according to the formula. Similar points on a graduated basis are also available with reference to nurses. Twenty points are given if medical records conform to A.C.S. standards.

The Hospital Advisory Council is attempting to place the hospital licensing program on a sound basis from the beginning. The Council hopes to have the program completely understood before it becomes effective. It is also their wish that the regulations be as widely approved as possible. The Council therefore welcomes suggestions from any hospital and from any individual for improvements for the proposed outline.

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Analysis of Postgraduate Education

Approximately 125 Kansas physicians have taken advantage of the graduate education fund donated by the members of the Society as a gesture of appreciation to those physicians who entered the armed forces during the recent war. It has been previously announced that the committee hopes to discharge its responsibilities to the Society with reference to the distribution of this money and requests that applications be forwarded to the Executive Office as soon as possible, even if graduate training is contemplated at a considerably later period.

The committee, with the cooperation of many of the physicians who have completed their graduate studies, offers another service to the physicians of Kansas. A questionnaire has been sent to each doctor upon the completion of his work, asking for an evaluation of his course. This in no way presumes to be a complete list of recommended graduate courses available in the United States. It is merely a summary of replies received to date on the questionnaire. From this group has been selected a series of courses which the students list variously as "excellent," "superior," and "splendid." Each of the courses has been recommended.

In the hope that this information will assist others who are contemplating graduate work, the Subcommittee on Graduate Education of the Committee on Medical Schools offers below a summary of these questionnaires. If further information on any particular course is desired, it may be obtained through the Executive Office.

Postgraduate Courses Offered by A.C.P.

The American College of Physicians has arranged a series of postgraduate courses for the spring of 1948 and has published the following outline:

Medical Aspects of Radioactivity—U. S. Naval Medical School, Bethesda, Maryland, February 18-27.

Physical Medicine for the Internist — Mayo Clinic, Rochester, Minnesota, March 22-26.

Cardiovascular Diseases—University of Southern California School of Medicine and Los Angeles County General Hospital, Los Angeles, California, April 12-17.

Electrocardiography — Massachusetts General Hospital, Boston, May 10-15.

Internal Medicine — Gallinger Municipal Hospital, Washington, D. C., May 17-22.

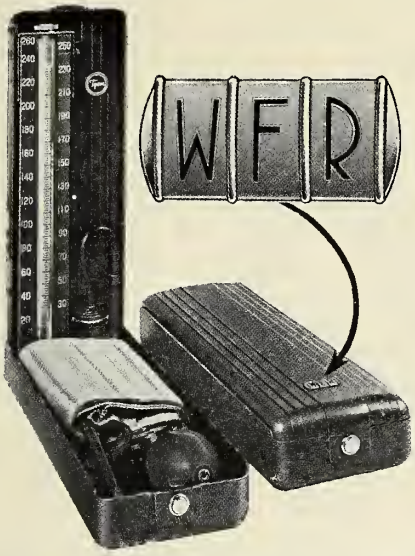
Clinical Allergy—Roosevelt Hospital, New York, New York, May 17-28.

Clinical Neurology—Jefferson Medical College of Philadelphia, Pennsylvania, May 24-29.

Physiological Basis for Internal Medicine—University of Illinois College of Medicine, Chicago, Illinois, May 31-June 5.

Diabetes and General Medicine—New England Deaconess Hospital, Boston, Massachusetts, July 12-16.

Type of Course	Institution	Length of Course	Tuition	Accepted toward Board	Lectures	Ward Rounds	Clinical Conference	Clinical Pathological Conference	Therapeutic Conference	Specialty Clinics	Laboratory Work	Clinical Work	Housing Conditions
Int. Med.	Cornell	6 mos.	$250	x	x	x	x	x	x	x	x	x	Difficult
Int. Med.	Wisconsin Univ.	2 mos.	100	x		x	x	x		x		x	Difficult
Int. Med.	Birmingham VA	2 yrs.	None	x	x	x	x	x	x	x		x	Critical
Int. Med.	Cook County	4 wks.	225	?	x	x		x					Fair
Int. Med.	Univ. of Kansas	1 yr.	None	x	x	x	x	x	x		x	x	Fair
Surgery	Hines VA	15 mos.	None	x	x	x	x	x	x	x	x	x	Provided if single
Surgery	St. Francis Wichita	1 yr.	None				x	x			x		Adequate
Surgery	St. Margaret's Kansas City	3 yrs.	None	x		x	x	x	x	x	x	x	Provided if single
Surgery	U.S.C.	4½ mos.	85?	?	x	x	x	x	x	x	x	x	Difficult
Surgery	Harper's Detroit	3 yrs.	None	x	x	x	x	x	x	x	x	x	Difficult
Surgery	Pennsylvania U.	8 mos.	800	x	x	x	x	x	x	x	x		Poor
Surgery	Cook County	2 wks.	200	?	x		x	x		x	x	x	Hotel
Surgery	St. Luke's Kansas City	2 yrs.	None	x	x	x	x	x		x	x	x	Poor
Surg. Tech.	Cook County	2 wks.	200		x		x				x		Hotel
Ob. and Gyn.	Providence Seattle	1 yr.	None	x	x	x	x	x	x	x		x	Very poor
Ob. and Gyn.	U.S.C.	4½ mos.	85?	?	x	x	x	x	x	x	x	x	Difficult
Gynecology	Cook County	6 days	100	?	x								Fair
Radiology	Univ. of Utah	3 yrs.	None	x	x	x	x	x			x	x	Poor
X-ray	Univ. of Kansas	2 mos.	?	x	x	x		x		x		x	Satisfactory
ENT	Washington U.	8 mos.	600	x	x	x	x	x	x	x	x	x	Poor
ENT	Univ. of Kansas	2 yrs.	None	x	x	x	x	x	x	x		x	Difficult
Ophthal.	Pennsylvania U.	8 mos.	800	x	x	x	x	x	x	x	x	x	
Ophthal.	Univ. of Kansas	2½ mos.	None	x								x	
Ophthal.	Univ. of Kansas	2 yrs.	None	x	x	x	x		x	x		x	Difficult
Pathology	St. Francis Wichita	1 yr.	None	x			x	x			x		Adequate
Pathology	Univ. of Kansas	6 mos.	None	x	x		x	x		x	x	x	Fair
Pediatrics	Children's Hosp. Denver	2 yrs.	None	x	x	x	x	x	x	x	x	x	Good
Pediatrics	Univ. of Kansas	2 yrs.	None	x	x	x	x	x	x	x		x	Not good
Pediatrics	Cook County	4 wks.	225	?	x	x		x					Fair
Anesthesiol.	Mayo Clinic	3 yrs.	None	x	x	x	x	x	x	x	x	x	Poor
Anesthesiol.	Univ. of Kansas	2 yrs.	None	x	x	x	x	x	x	x	x	x	Provided if single



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VETERANS ADMINISTRATION AGREEMENT

The new agreement between the Veterans Administration and the Kansas Medical Society became effective on January 15, 1948. Alterations in the program affect operational procedures and have almost nothing to do with the physicians' part of the program. Work will continue as in the past, but it will be noted that in many instances a higher valuation will be placed on the services that are rendered.

In many portions of the country programs such as this are not operating to the satisfaction of the Veterans Administration. The reason is obvious when it is recalled that requirements are at least as important from a legal angle as they are from a medical angle. The individual physician, frequently lacking knowledge of these regulations, fails to perform his work to the satisfaction of the Veterans Administration. This in no way implies that his medical work is questioned but is an indication that legal requirements must be met before the Veterans Administration can consider a medical care program adequate for its own standards.

In Kansas, this is different. This plan, unique in the United States, has a liaison officer, the Medical Coordinator, whose sole function is to assist fee designated physicians in preparing all reports correctly before they reach the Veterans Administration. This is of tremendous service to the medical profession in Kansas because it saves the Kansas program from much of the criticism that has been made of similar programs elsewhere.

Therefore, we again urge every participating physician to return all examinations to the Medical Coordinator, 215 West Tenth Street, Topeka. All authorizations for treatment should also be obtained through that office. All questions with reference to this program should be directed to the Medical Coordinator or to the Executive Office of the Kansas Medical Society.

The purpose is simple and obvious. Every incomplete report or incorrect form will be intercepted by the Medical Coordinator and returned to the physician for correction before it reaches the Veterans Administration. As a result, the Kansas program can be operated far more successfully than where the contact between participating physicians is made directly through the Veterans Administration.

One other comment is necessary about the new agreement. This has to do with the present policy of authorizing patients for care outside a Veterans Administration hospital. First, eligibility remains the same. Outpatient care can be rendered only for service connected disabilities with the few exceptions that have been previously announced. Second, in case hospital care is required, even though the patient is eligible to be cared for in his own community, he will still be sent to the Veterans Administration hospital unless there is an emergency and no government bed is available. Third, authorization for care rendered outside a hospital will be given to the fee designated physician or the patient will be sent to a Veterans Administration outpatient clinic on the basis of what appears best or most convenient for both the patient and the Veterans Administration.

The program of outpatient care for veterans is an adjunct to the service rendered at the Veterans Administration. Under the Kansas plan, physicians of this state have offered to serve the Veterans Administration in caring for veterans but remember at all times that authorization for such service must first be granted by the Veterans Administration. In other words, the participating physician cares for a veteran under this program only after he has been requested to do so by the Veterans Administration.

MEMBERS

Dr. J. D. Colt, Jr., Manhattan, announces that his son, Dr. James D. Colt, V, who was discharged from the Navy in December, is now associated with him in the practice of medicine and surgery.

* * *

The Arkansas City clinic announces that Dr. Edwin R. Maier is now practicing with the clinic. Dr. Maier returned in December from Liberia, West Africa, where he served as plantation physician and surgeon for the Firestone Tire and Rubber company.

* * *

Dr. Roger P. Weltmer, who specializes in urology, is now practicing in Beloit in association with his father, Dr. W. W. Weltmer.

* * *

Dr. J. E. McManis of Havensville, who reached his 80th birthday last August, has retired from practice.

* * *

Dr. C. R. Dickinson, who was released from the Navy in December, has opened an office in the Centropolis building, Coffeyville. His father, Dr. J. M. Dickinson, has been practicing in Coffeyville for a number of years.

* * *

Dr. H. L. Galloway, Anthony, announces that Dr. Charles D. Terry, formerly of Nashville, Tennessee, is now associated with him in practice at the Galloway hospital. Dr. Terry is taking the place of Dr. Philip Antrim, who recently moved to Idaho.

* * *

Dr. Clem H. Jones, 80-year-old physician at Galena, was the subject of a feature story in the Galena Sentinel-Times last month. After having spent 60 years in the medical profession, Dr. Jones has attended 5,000 maternity cases.

* * *

Dr. Leland N. Speer, Kansas City, received belated decorations for his part in World War II at a military ceremony at the Olathe naval air station last month. He received the Distinguished Flying Cross and the Air Medal with three stars for "conspicuous gallantry and outstanding achievement while on duty as a flight surgeon in the South Pacific."

* * *

Dr. J. Howard Gilbert, Seneca, has been named health officer and physician for Nemaha county.

* * *

Dr. J. D. Hilliard, a member of the staff of the Hatcher clinic, Wellington, has enrolled at the Moore clinic, Columbia, South Carolina, for graduate study in orthopedic surgery.

* * *

Dr. N. C. McCubbin, who formerly practiced in Kentucky, has opened an office in Concordia.

* * *

Dr. William B. Scimeca, formerly of Moline, has established his practice in Caney and has joined his brother, Dr. Michael W. Scimeca, in operation of the Scimeca Memorial hospital.

* * *

Dr. Spencer Fast, Atchison, has been appointed Atchison county health officer, a position his father, the late Dr. W. K. Fast, had also held.



IN

Dietary Supplementation

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CALCIUM	1.12 Gm.	VITAMIN C	30.0 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN D	417 I.U.
IRON	12.0 mg.	COPPER	0.50 mg.

*Based on average reported values for milk.

COUNTY SOCIETIES

Officers of the Sedgwick County Society were chosen at a meeting held January 6 at the Broadview Hotel, Wichita. Those named were: president, Dr. J. S. Hibbard; vice president, Dr. E. L. Mills; secretary, Dr. N. L. Francis; treasurer, Dr. J. L. Beaver; directors, Dr. C. W. Miller and Dr. A. E. Hiebert.

* * *

The Smith County Society, with 100 per cent membership and 100 per cent attendance, met January 13 at the home of Dr. Victor E. Watts, Smith Center. The following officers were elected: president, Dr. B. Hartman, Kensington; secretary, Dr. Watts; delegate to state meeting, Dr. John R. Lathrop, Smith Center.

* * *

A meeting of the Marion County Society was held at the Korner Cafe, Marion, January 7. The program included a discussion of x-ray films and EKG tracings.

* * *

The Harvey County Society met January 5 at the Meridian cafe, Newton. Dr. D. S. Klassen discussed histoplasmosis, and Dr. J. A. Wheeler spoke on virus infections causing encephalitis and poliomyelitis.

* * *

The Sedgwick County Society was host at a luncheon on January 16 in honor of Dr. Ross T. McIntire, director of the Red Cross national blood program; Dr. G. Foard McGinnis, vice chairman of Red Cross health services; and Dr. Raymond F. Barnes, administrator of Red Cross medical and health services in the midwestern area. The guests were in Wichita for a dedication service at which the Wichita blood donor center became a member of the national blood program. Basil O'Connor, president of the Red Cross, gave the dedicatory address.

* * *

The Pottawatomie County Society met January 12 at Wamego and elected the following officers for 1948: president, Dr. A. H. Bressler, Wamego; secretary, Dr. O. L. Smith, St. Marys. Two new physicians in the county were elected to membership, Dr. Robert M. Knox of Wamego and Dr. E. A. Walsh of Onaga.

* * *

Members of the Cowley County Society entertained their wives and other guests at a dinner at the Winfield country club on January 15. Students of the fine arts department at Southwestern college presented a musical program for the 58 members and guests present.

* * *

Officers of the Nemaha County Society were elected at a meeting held January 14 at the Seneca hospital. Dr. Martin Rucker, Sabetha, was named president; Dr. C. M. Barnes, Seneca, vice president; Dr. R. E. Capsey, Centralia, secretary-treasurer. The group later joined the county Auxiliary for a social meeting.

* * *

The Rush-Ness Medical Society met January 14 in Alexander. Dr. L. A. Latimer, Alexander, was elected president, Dr. N. W. Robison, Bison, was named vice president, and Dr. J. E. Attwood, La Crosse, was chosen secretary. A new member, Dr. James T. Makinson, was received into the group.

* * *

A meeting of the Sumner County Society was held at Wellington January 15. The following officers were elected: president, Dr. Ward Cole; vice president, Dr. B. V. Thompson; secretary, Dr. J. E. Hill; delegate to state meeting, Dr. J. Allen Howell.

Pharmaceutical Economics

Medicine makers were urged to "do our share in keeping prices down" by Dr. J. Mark Hiebert, vice president of Sterling Drug, Inc., participating in a panel discussion on medical marketing before the American Pharmaceutical Manufacturers' Association in New York City on December 17.

"We have no allocation or price control problems, and materials are in greater supply than they have been in some time," Dr. Hiebert said, "But we are faced with new and perplexing problems in adjusting ourselves to an inflationary economy. We can contribute most to our nation today by contributing least to inflation.

"In spite of increases in wages, materials and living costs, let us resolve to do our share in keeping prices down. More efficient management, better marketing, disallowance of waste, elimination of duplication, more efficient manufacturing operations—these and other things well done can help us to honor this resolution."

In discussing medical marketing Dr. Hiebert said that the manufacturer's first consideration was "to give a new product an opportunity to succeed." Without withholding important medical discoveries from the public for business reasons, he urged concentration on comparatively few major introductions each year. In this way, he pointed out, the money available for promotion can be more intensively and intelligently used. Too many introductions each year serve to confuse the physician, the wholesaler and the druggist.

Dr. Hiebert disclosed a technique of "promotional research" he has used over the years. After basic laboratory research and product development, and after clinical testing, he recommended that the product be distributed to about 100 leading physicians throughout the country. From these physicians, whom he described as co-workers, additional clinical data may be obtained on a mass basis. The physicians are glad to cooperate, he said, because they contribute to medical progress while winning prestige as leaders in their own communities for their pioneering.

Dr. Frank J. Stockman, vice president of Winthrop-Stearns, Inc., participating in the same panel discussion, maintained that management of the pharmaceutical industry should direct available research resources into purposeful channels and that before setting the compass, the knowledge, experience and judgment of the medical staff should be given consideration.

Experimental Biology and Medicine Institute

Establishment of an experimental biology and medicine institute, in the National Institute of Health of the U. S. Public Health Service, has been announced by Oscar R. Ewing, Federal Security Administrator. The new research institute will combine the functions of the division of physiology and the pathology and chemistry laboratories and will permit greater coordination of scientific investigations.

Dr. William Henry Sebrell, Jr., chief of the division of physiology, has been named director of the new institute. He will also serve as associate director of the National Institute of Health.

Formation of the institute is part of a wider organization of the National Institute of Health, Dr. Thomas Parran, surgeon general of the Public Health Service, explained. Four other divisions and laboratories engaged in scientific research also will be consolidated into two additional institutes. All will be modeled after the National Cancer Institute.



Pioneer's

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Included on the list of quality products which doctors recommend is Page Evaporated Milk — a product of one of the oldest names in the canned milk industry. To Charles A. Page (then U. S. Consul at Zurich, Switzerland) goes credit for organizing the original canned milk plant, 1865, in Switzerland.

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Death Statistics for 1946

The year 1946 marks a new record low for the crude death rate in the United States, according to figures of the National Office of Vital Statistics released recently by Oscar R. Ewing, Federal Security Administrator. The death rate for the year was 10.0 per 1,000 population as compared with the rate of 10.6 for 1945 and the previous lowest rate of 10.4 in 1942. The total number of deaths in 1946 was 1,395,617 or 6,102 fewer than in 1945.

The estimated death rate for the United States in 1947, based on data for the first 10 months of the year, was 10.1.

All figures are for the continental United States and exclude armed forces overseas.

During 1946 deaths from diseases of the heart increased for the third consecutive year. There were 429,230 deaths from heart diseases, or 4,902 more than in 1945, and 11,168 more than in 1944. This cause alone accounted for 30.8 per cent of the total number of deaths in 1946 as compared with 30.3 per cent in 1945 and 29.6 per cent in 1944.

Cancer and other malignant tumors continued to increase in importance as a cause of death. This disease caused 182,005 deaths or 13.0 per cent of the total number of deaths in 1946.

The number of deaths from the other major chronic diseases decreased from those for the previous year. There were 125,646 deaths from intracranial lesions of vascular origin in 1946 as compared with 129,144 in 1945; 81,701 deaths from nephritis as compared with 88,078 in 1945; and 34,731 deaths from diabetes mellitus as compared with 35,160 in 1945.

In 1946 as in 1945 new record lows were set for deaths from the major infectious diseases—pneumonia and influenza, and tuberculosis. The total of 62,324 deaths from pneumonia and influenza was 6,062 or 8.9 per cent fewer than the total of 68,386 in 1945. Tuberculosis caused 50,911 deaths in 1946, 2,005 or 3.8 per cent, fewer than the total of 52,916 in 1945.

Maternal mortality also declined to a new low in 1946. Despite the tremendous increase in the birth rate, maternal deaths decreased from 5,668 in 1945 to 5,153 in 1946. From 1945 to 1946, the number of births increased approximately 20 per cent, while the number of deaths resulting from diseases of pregnancies, childbirth, and the puerperium decreased 9.1 per cent.

The five leading causes of death in the United States in 1946 in rank order were diseases of the heart, cancer, intracranial lesions of vascular origin, nephritis, and accidents other than motor vehicle accidents. This is the first year in which pneumonia and influenza (combined) was not represented among the five leading causes of death.

Therapeutic Trials Committee

The work of the Therapeutic Trials Committee of the A.M.A. is progressing and Dr. Walton Van Winkle, Jr., secretary, reports that two contracts were completed during the past year and others were continued or initiated. One contract completed was with the Johns Hopkins School of Medicine for a study of a bronchodilator compound and the other was with the University of Pennsylvania School of Medicine for study of an agent alleged to promote wound healing.

The committee also has sponsored a study of streptomycin in granuloma inguinale at Louisiana State University School of Medicine and has assisted in obtaining supplies of streptomycin.

A subcommittee is conducting a nation-wide study of androgens and estrogens in the treatment of breast cancer, and a total of 5.375 kilograms of testosterone has been pledged for committee use during 1948. Arrangements are being made with the American Registry of Pathology at the Army Institute of Pathology, Washington, D. C., to receive and prepare for examination all pathological specimens obtained in this study. A group of consultants in pathology has been appointed to examine all specimens and to correlate the pathologic and clinical findings.

At the request of the National Foundation for Infantile Paralysis, Inc., the committee has explored the feasibility of conducting a clinical experiment to test the value of certain therapeutic measures in the treatment of acute poliomyelitis. A subcommittee appointed to make a report on the request has recommended that certain studies be undertaken.

International Poliomyelitis Conference

The National Foundation for Infantile Paralysis announced recently that it would sponsor the first International Poliomyelitis Conference at the Waldorf-Astoria hotel, New York, July 12-17, 1948.

The Department of State has been requested to transmit invitations to more than 60 foreign governments to send official delegates to the conference. These officials will be asked to present summarizations of the problems of poliomyelitis in their countries. The program will include scientific papers on research and treatment in this country and abroad, panel discussions, demonstrations of muscle testing and treatment procedures, a film program and a scientific exhibit section.

Mr. Basil O'Connor, president of the National Foundation, will be official host and Surgeon General Thomas Parran will serve as presiding officer. Dr. Hart E. Van Riper, the Foundation's medical director, has been appointed general charman.

Schering Reduces Prices

As part of its program designed to make potent hormones available for the treatment of more persons in need of their benefits, the Schering Corporation has announced a 25 per cent reduction in price for two of its products, Pranone (anhydrohydroxy-progesterone) and Proluton (crystalline progesterone). Both products are used to protect pregnancy and have a wide variety of other indications. Schering reports that reductions were made possible by expanded production facilities and new manufacturing technics.

Contact Lens Laboratory in Detroit

The American Optical Company has announced the establishment and operation of a plastic contact lens manufacturing laboratory in Detroit, Michigan, after years of research in the field.

To reduce the possibility of limbal touches and thus simplify fitting, the inside corneal section of the lens is 15 mm. in diameter. For comfort and correct fit, the lens is molded with a modified shoulder on the inside, thus eliminating the disadvantages of a sharp shoulder. There is a smoothness and blending of the anterior corneo-scleral juncture which prevents frictional resistance and irritation of the lid as it passes over the lens. Ample corneal apex clearance of 0.3 to 0.5 mm. is provided.

From impressions sent to the laboratory, semi-finished plastic lenses are molded and sent to the doctor for fitting. He then returns them for high-lustre polishing and completion.

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Public Health Service Research

Public Health Service awards for basic medical research have totaled $10,214,174 during the past 20 months, according to a report released recently by Oscar R. Ewing, Federal Security Administrator. Since the program was launched in late 1945 to promote research considered most essential to the improvement of the nation's health, 629 scientists in 193 institutions have shared in the grants.

Aside from specifying that the research grant funds may not be used to relieve an institution from its ordinary teaching, administrative or research responsibilities, wide latitude is allowed the investigator in the use of research grant funds. He is given complete freedom to conduct projects in whatever way he chooses and is not subject to any governmental review. Projects in cancer and in mental hygiene are passed on by the National Advisory Cancer Council and by the National Advisory Mental Health Council, respectively. All other awards are made upon recommendations of the National Advisory Health Council assisted by study sections composed of groups of scientists in the major categories of medical research.

The largest sum awarded during the past 20 months was allotted to venereal disease research, $1,669,793. The second largest, $1,241,510, went to research on cancer, and the third in size, $703,187, was used for study of heart disease and other cardiovascular illness. It is hoped that research on venereal disease will bring forth power to stamp it out entirely, but studies on cancer and heart disease reflect urgent need rather than hope of immediate cure.

Preventive medicine is recognized in the grants by selection of nutrition and biochemistry projects for the fourth largest investment, $682,358, in the belief that the correction of dietary deficiencies would prevent many illnesses as well as provide cures for specific types of disease.

From January 1, 1946, through August 31, 1947, two Kansas institutions have received grants totalling $117,821. The University of Kansas was awarded $72,526 and the Menninger Foundation was allotted $45,295.

Accepts Public Relations Post

Dr. George F. Lull, secretary and general manager of the A.M.A., has announced that Mr. Lawrence W. Rember is serving as his assistant in charge of the public relations program of the association. Theodore R. Sills and Company will be retained as public relations counsel.

Mr. Rember formerly directed public relations for the Blue Cross plan commission of the American Hospital Association and the midwestern area of the American Red Cross. He also did public relations work for the nutrition research agency of a three-billion-dollar food industry, worked with a newspaper five years and with an advertising agency for two years.

Assails Use of Practical Nurses

Indiscriminate substitution of practical nurses for registered professional nurses to take over the major part of ordinary bedside nursing was assailed last month by Ella Best of the American Nurses' Association as "detrimental and dangerous" to a patient's health. Miss Best's views were contained in a telegram sent Dr. Morris Fishbein after publication of an editorial on the subject in Hygeia.

"The solution of the nursing crisis does not lie in the training of more practical nurses to take over the major part of bedside nursing in hospitals, as you were quoted as saying in Hygeia," Miss Best said. "We recognize that practical nurses fulfill a needed function, but not this one ... In time of critical shortage of doctors it was not suggested that first aid technicians be substituted in their place. The same parallel exists betwen practical and professional nurses.

"The A.N.A. program for practical nurses calls for increased utilization of their services if three precautions are taken: proper preparation and training of at least nine months in an accredited school; state licensure to maintain standards of practical nursing and to weed out incompetents; proper placement and supervision to make certain practical nurses are placed where they will not practice beyond their ability, and to insure their working under competent supervision.

"The American Nurses' Association holds that the crisis in nursing will be overcome only when the profession is made sufficiently desirable to attract and retain a sufficient number of qualified women on a basis of its professional status and economic stability. This, rather than lowering the standards of nursing, seems to be indicated in the public interest."

To Direct Blue Cross-Blue Shield

Dr. Paul R. Hawley, who reorganized and developed the medical-hospital program of the Veterans Administration, has been named chief executive officer of the national organization of Blue Cross hospital service plans and Blue Shield medical-surgical service plans. He will assume his new duties April 1.

Examinations in Ophthalmology

The American Board of Ophthalmology announces that practical examinations will be given at Baltimore, May 20-25 and at Chicago October 6-9. Written qualifying tests are held annually, usually in January, and applications for the 1949 tests must be filed before July 1, 1948. Complete information may be secured from the Board, Cape Cottage, Maine.

Army Opening for Specialists

The Army Medical Corps announces a number of openings for physicians who need one or two years of specialty practice to fulfill board requirements. All are overseas locations in Army hospitals, registered with the A.M.A. Complete information may be secured from the Surgeon General, U. S. Army, Washington 25, D. C.

Refresher Course Successful

The refresher course in Radiology and Cancer, offered at the University of Kansas Medical Center, January 19-21, was one of the most successful in recent years, according to a report from Harold G. Ingham, director of the extension program in medicine. There was no enrollment fee since the course was subsidized by the Kansas Division of the American Cancer Society. A total of 107 physicians attended the three-day course.

International Surgical Assembly

The Sixth International Assembly of the International College of Surgeons will be held in Rome, Italy, at the invitation of the Italian government, during the week of May 16-23, 1948. Attendance is not limited to the membership of the College, and all surgeons are invited.

Information on the assembly may be secured from Dr. Max Thorek, 850 Irving Park Road, Chicago 13, Illinois. Travel information is being sent out by the All Nations Travel Bureau, 38 South Dearborn Street, Chicago, official travel representative for this assembly.

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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

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BOOK REVIEWS

A History of Medicine. By Cecilia C. Mettler, A.B., Ed.B., A..M., Ph.D., Late Assistant Professor of Medical History, University of Georgia School of Medicine, and Late Associate in Neurology, College of Physicians and Surgeons, Columbia University. Edited by Fred A. Mettler, A.M., M.D., Ph.D., Associate Professor of Anatomy, College of Physicians and Surgeons, Columbia University. Published by The Blankiston Company, Philadelphia. Price $8.50.

This comprehensive and well written history of medicine is the best work in this field that this reviewer has read. The whole field of medical development is within its covers. From the Babylonians and early Egyptians—through the men and women of our own day and time who are making the latest additions to the science—all are there.

It is developed as medicine itself was developed. Anatomy, Physiology, Pharmacology, Pathology, Medicine, Neurology, Venerology, Dermatology, Pediatrics, Surgery, Obstetrics and Gynecology, and Ophthalmology. Under each division are short biographies, seemingly of all the men and women who have worked and discovered in their particular fields.

It is a life time book. It will not be outdated. It really is an encyclopaedia of the makers of medicine, who they were, where they lived and when, how and with whom they studied, and what they did.

If medical schools today have courses in Medical History, this book should be required reading. All physicians in practice who like to be better informed in the beginnings of things should like it. They should have it in their libraries.—AKO.

* * *

The Years after Fifty. By Wingate M. Johnson, M.D., with foreword by Morris Fishbein, M.D. Published by McGraw-Hill Book Company, New York. 153 pages. Price $2.00.

Dr. Johnson, in the preface of the book, states that he wrote it to help intelligent men and women prepare for the latter half of life. After having been a family physician for more than 30 years, he was familiar with physical and emotional problems of all ages and felt that those of 50 and more needed a practical guide.

He devoted a chapter to each of the major ills, high and low blood pressures, disorders of the respiratory system, diseases of the heart and blood vessels, disorders of the digestive system, rheumatism and arthritis. Other chapters treat "The Bugaboos of Age," "Mental Changes of Age," "Exercise and Recreation."

The book was written for lay readers and can well be recommended.

* * *

The Selected Writings of Benjamin Rush. Edited by Dagobert D. Runes. Published by Philosophical Library, New York. 433 pages. Price $5.00.

The story of Benjamin Rush, physician, reformer, statesman, professor, is well known to physicians. He served in the Continental Congress and as a surgeon in the Revolutionary Army, he is remembered as one who signed the Declaration of Independence, he lectured as professor of chemistry in the Medical School of the College of Philadelphia, he was treasurer of the U. S. mint. Yet he found time to campaign for temperance, the abolition of slavery and humane treatment for mental patients. And to each position and project he gave intense loyalty.

This compilation of the writings of Dr. Rush is divided into four sections, those relating to government, those concerning education, lectures on natural and medical sciences, and sermons and articles on miscellaneous topics. Physicians of course will be most interested in his lectures on medical practice in his day, the latter part of the 18th century, and will enjoy reading his views on medical economics. His lecture on "Vices and Virtues of Physicians" implied that a doctor has fewer vices than virtues but he stated also that "a physician who is a bad man is more inexcusable than a bad man of any other profession, a minister of the gospel excepted." In his closing lecture to medical students he recommended farm life for doctors, "The business of a farm will furnish you with employment in the healthy seasons of the year, and thereby deliver you from the tedium vitae, or what is worse, from retreating to low or improper company."

The book is well assembled with a short preface and adequate references.

* * *

Manual of Pharmacology. Its Applications to Therapeutics and Toxicology. Seventh edition. By Torald Sollmann, M.D. Published by W. B. Saunders Company, Philadelphia. 1132 pages. Price $11.50.

Manual of Clinical Therapeutics. A Guide for Students and Practitioners. By Windsor C. Cutting, M.D. Published by W. B. Saunders Company, Philadelphia. 712 pages, 30 illustrations. Price $5.00.

Manuscript Service Available

Announcement has been made of the establishment of Manuscript Service, Inc., an organization devoted to editorial service in the field of medicine and allied sciences, by Ralph E. Sloan, president.

The service will provide abstracts of literature, compile data from the literature, suggest methods of assembling or compiling material, suggest organization of manuscripts, design tables and charts, verify references, check bibliographies, and compile indexes. Work done by the organization is directed by an editor with many years of experience in the preparation and publication of papers and books concerned with clinical diagnosis and therapy, surgery, nutrition, psychiatry, mental hygiene, roentgenology, physiology and biochemistry.

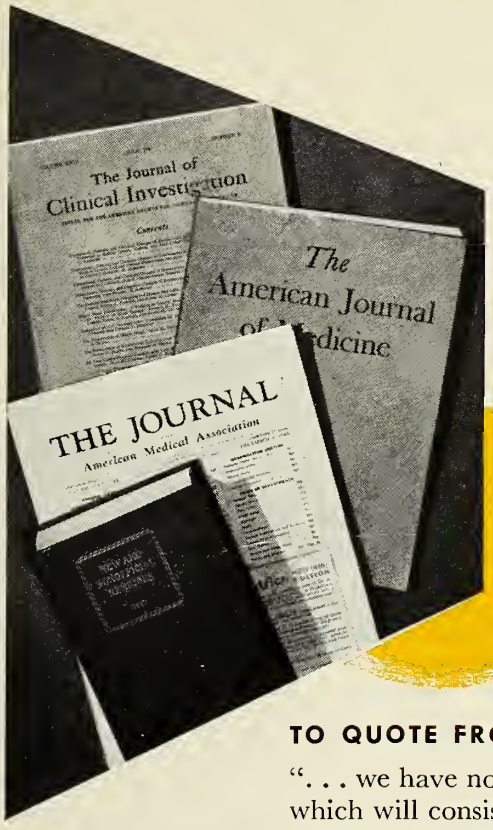
Manuscript Service, Inc., may be addressed at 6432 Cass Avenue, Detroit 2, Michigan.

Commissions in Regular Navy

Admiral C. A. Swanson, surgeon general of the U. S. Navy, has announced that it is now possible for civilian doctors to become commissioned officers in the regular Navy, provided they meet professional and physical qualifications. The former age limit of 32 years has been abolished, and consideration is given all strata of the medical profession, interns, residents, reserves, and practicing physicians.

To be eligible, a doctor must be a citizen of the United States, a graduate of a Class A medical school and have served at least one year's internship in an approved hospital. Candidates will be judged on a number of qualifications, and the allocation of rank, up to and including captain, will be determined by academic age, professional standing and experience.

Information may be secured from the Bureau of Naval Personnel, via the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.



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1. *Combined Staff Clinics of the College of Physicians and Surgeons, Columbia University: Am. J. Med.* 1:675 (Dec.) 1946.
2. *Comroe, B. I.: J.A.M.A.* 128:848 (July 21) 1945.
3. *Council of Pharmacy and Chemistry: New and Nonofficial Remedies, 1947, Philadelphia, J. B. Lippincott Company, 1947, p. 477.*
4. *Freyberg, R. H.; Block, W. D., and Levy, S.: J. Clin. Investigation* 20:401 (July) 1941.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

Norton Medical Award

The Norton Medical Award, offering $5,000 as a guaranteed advance against royalties, is again being offered by W. W. Norton and Company for book manuscripts written by professional workers in the field of medicine for the lay public. The award is not limited to any one year, and manuscripts may be submitted at any time. Either complete manuscripts or detailed tables of contents together with 100 pages of manuscript may be submitted. Complete information may be secured from the publishers, W. W. Norton and Company, Inc., 101 Fifth Avenue, New York 3, New York.

Course in Writing by Dr. Fishbein

A course in medical writing will be presented at the next annual meeting of the Mississippi Valley Medical Editors' Association, to be held at Springfield, Illinois, September 29, by Dr. Morris Fishbein, editor of the Journal of the American Medical Association. No registration fee will be charged members of the editors' association.

A change in the name of the organization is being contemplated since the word "editors" is felt to be too restrictive. The principal purpose of the association is to improve medical writing, and it has been suggested that the name medical "writers" or "authors" would be more appropriate.

Course in Diseases of the Chest

The American College of Chest Physicians, Pennsylvania chapter, and the Laennec Society of Philadelphia are sponsoring a postgraduate course in diseases of the chest, March 15-20, 1948, at the Warwick hotel, Philadelphia. The course will be limited to 30 physicians. Tuition fee is $50 for members, $90 for non-members.

Complete information may be secured from the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

Meeting of Congress of Physical Medicine

A seminar on spinal cord injuries will feature the midwestern sectional meeting of the American Congress of Physical Medicine at the Veterans Administration hospital, Hines, Illinois, February 26 and 27, 1948. Speakers will be physicians associated with the School of Medicine at Northwestern University, the University of Illinois College of Medicine, and the Veterans Administration hospital. All physicians are invited to attend.

Gastroenterological Awards

The National Gastroenterological Association has announced its annual cash prize award contest for 1948, with $100 and a certificate of merit to be given the author of the best unpublished contribution on gastroenterology or allied subjects. The contest is open in the United States to members of the American Medical Association and in foreign countries to members of similar organizations in those nations.

Entries should be limited to 5,000 words, prepared in manuscript form, typewritten in English, and submitted in five copies, accompanied by an entry letter. The closing date is April 1, 1948, and the award will be made at the annual banquet of the association in June. Complete information may be secured from the National Gastroenterological Association, 1819 Broadway, New York 23, New York.

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C. B McVAY, M.D., Clinicol Professor of Surgery, University of South Dokoto, Yonkton, South Dokoto.

CARL A. MOYER, M.D., Professor of Experimentol Surgery, Southwestern Medicol Colege, Dallos, Texos.

University of Kansas Faculty:

THOMAS G. ORR, M.D., Professor of Surgery.

DONALD F. COBURN, M.D., Associote in Neurosurgery.

THOMAS M. JOHNSON, M.D., Associote in Surgery.

PAUL H. LORHAN, M.D., Associote Professor of Anesthesiology.

DAVID W. ROBINSON, M.D., Asosciote in Plostic Surgery.

MERVIN J. RUMOLD, M.D., Associote in Surgery.

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WILLIAM L. VALK, M.D., Professor of Clinicol Urology.

JAMES B. WEAVER, M.D., Professor of Clinicol Orthopedic Surgery.

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Subjects to be Discussed

Operotions Upon the Lorge Bowel

Diverticulitis of the Colon.

Recent Chonges in the Treotment of Voricose Veins.

Anotomy ond Anotomic Repoir of Inguinol ond Femerol Hernioe.

Diognosis ond Treotment of Bone Tumors.

Post-troumotic ond Post-operotive Anurios.

Abdominol Incisions.

Theropeutic Uses of Introvenous Procoine.

Plostic Repoir of Extremities to Conserve Function.

Applicotion of Generol Physiologic Principles to Pre-operotive ond Post-operotive Core.

Tumors of the Esophogus ond Upper Stomoch.

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CANCER OF THE LARYNX AND HYPOPHARYNX

Galen M. Tice, M.D.
and Charles M. White, M.D.*
Kansas City, Kansas

Carcinoma of the larynx is a rather general term usually used to denote both the "extrinsic" and "intrinsic" forms. The terms extrinsic and intrinsic are surgical in origin and generally denote inoperability and operability respectively. The designation laryngopharynx and endolarynx as used by some[1] is perhaps more lucid. In general, tumors arising above the laryngeal wall of the epiglottis and the aryepiglottic folds are considered in the laryngopharynx or hypopharynx while those arising below are in the endolarynx. This discussion is concerned with cancers in both areas.

Carcinoma of the endolarynx occupies a unique position in the cancer field for it betrays its presence early with hoarseness, and it is easily accessible for treatment. Tucker[24] states that early diagnosis in cancer of the larynx means curability in a larger percentage of cases than in internal cancer in any other location. In early cases he expects to obtain a 60 to 85 per cent cure rate. Because of the above features this is one malignancy that should be approached with at least a degree of optimism.

From 1935 to 1947, 52 cases of cancer of the larynx have received x-ray therapy at the University of Kansas hospital under the direction of the senior author. Thirty-four cases received x-ray therapy alone while 14 cases received it post-laryngectomy and four cases received it post-laryngofissure. It is our purpose to review not only the results obtained but also other pertinent facts concerning diagnosis and the selection of the method of treatment.

Cancer of the larynx is principally a disease of males affecting men about ten times as frequently as women.[24] In our series 94.3 per cent of the cases were in men. The use of tobacco and alcohol has been mentioned in the past as an etiological factor; however, in more recent years there seems to be no increase in the incidence of the disease in women who have acquired the habit of smoking.

The etiology of cancer here as elsewhere is not definitely known. It is probable that local irritation does play a part. There may be so-called precancerous lesions. Keratosis of the larynx has been suggested as such a lesion. Clerf[3] feels that the keratosis in itself is benign but that a certain number either become carcinoma or predispose to its development. Certainly any patient with such keratoses should be kept under close observation. In our cases one man had had hoarseness for 10 years and two others for periods of from two to three years. It is difficult to believe that they had a cancer for that time. It is likely that in such cases some precancerous lesion is present.

The outstanding symptom of cancer of the endolarynx is chronic hoarse voice. This symptom occurred in over 90 per cent of our cases. Unfortunately this has not led the patient to seek advice until relatively late. The earliest case in our series had been hoarse for three weeks. This was an exception, for the average duration of hoarseness before the patient presented himself for treatment in the series was eight months. This does not include the three cases mentioned above who had had hoarseness for over 2½ years. Cutler[10] found hoarseness to be the early symptom in 95 per cent of the cases while the Jacksons[15] found it in 98 per cent of their series. If local pain should develop it usually means invasion of the cartilage.[11]

Recognition of the laryngopharynx lesion may be more difficult. Here the early symptoms are odynophagia, dysphagia, otalgia and cough with hoarseness coming after invasion of the larynx.[1] Hammond[13] points out that extrinsic cancer rarely gives a warning until it is far advanced. Orton[21] has found that in cancer of the laryngopharynx usually one year elapses from the time the patient realizes something is not right in his throat before treatment or advice is sought. Certainly one must exclude cancer first in any patient with chronic hoarseness or discomfort of the throat.

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The diagnosis of cancer of the larynx is made by inspection and biopsy. Here, as in all malignancies, the biopsy is of paramount importance because of the rather heroic measures which are sometimes necessary. The inspection of the lesion is very important particularly in determining its location and extent, for this will decide the therapy to be employed. We rely upon the otolaryngologists who are much more capable in examination of this area than we. It should be mentioned here that the anatomy of the larynx and hypopharynx is well shown by x-ray in the lateral view. Coutard[5] used the x-ray film to help determine the size, extent and degree of invasion of the tumor.

Cancers of the laryngopharynx most commonly arise from: 1. Posterior wall. 2. Walls of the piriform sinus. 3. Postcricoid region. With the exception of those arising from the posterior wall, these carcinomas sooner or later invade the larynx.[1] Malignancies of the endolarynx may arise from: 1. Vestibule (epiglottis and false cord). 2. Ventricular cavity. 3. Vocal cord. 4. Subglottic area. All but about 15 per cent arise from the true vocal cord.[7] The lymphatics about the true cords are sparse so that generally metastases are a late manifestation of these cancers.[1]

The overwhelming majority of cancers of both the laryngopharynx and endolarynx are squamous cell in type. In general those of the laryngopharynx show the least differentiation and those of the true cord the most differentiation.[1] The radiosensitivity of a tumor may depend on its cell type and upon its location. Harris and Klemperer[14] have studied the relation of cell type and radiosensitivity in cancer of the larynx. They first point out that the histologic picture of a biopsy specimen may not be representative of the entire tumor as regards the degree of differentiation and other cytologic features. After studying the results of therapy in a series of cases, they concluded that the histologic structure is of minor importance in determining the radioresistance of laryngeal carcinoma. Cutler[7, 8] feels that the site of origin frequently determines the radiosensitivity of these neoplasms. He states that carcinoma arising from the false cord or epiglottis is radiosensitive while cancer of the true cord is radiosensitive in its early stages only. If the tumor has infiltrated underlying muscle with cord immobility, it is radioresistant.

Because of the loss of voice subsequent to laryngectomy, irradiation therapy was early tried for cancer of the larynx. Results were in general rather poor until Coutard demonstrated good results using protracted, fractionated x-ray therapy. Since then, results from x-ray therapy have been good enough so that the Jacksons[15] have stated that as the technique of radiation improves, the indications for laryngectomy diminish. Rather definite critera have evolved to aid in the selection of the type of therapy to be used in any given case. Naturally there are many instances where criteria overlap and the selection is very difficult. Perhaps the greatest advantage of x-ray therapy is the preservation of the laryngeal voice. This, however, should be given little thought when the chances for cure are greater with surgery.

As indicated above the most important consideration in the selection of treatment is the gross location and the extent of the lesion.[16] In cancer arising on the true cord, if it is treated early, laryngofissure offers about an 80 per cent cure rate.[16] This holds for lesions involving the middle third of one cord and even those that extend to the anterior commissure. del Regato[1] feels that these can be as well treated by x-ray as long as there is no invasion of the anterior commissure or fixation of the cord. If there is invasion of the anterior commissure, he recommends laryngofissure or laryngectomy. Except for the lesions which extend to the subglottis, where he recommends laryngectomy, del Regato[1] feels that the remainder are best treated by x-ray therapy. Jackson[16] also feels that in extrinsic lesions irradiation accomplishes as much as surgery in arresting the growth and prolonging life with the advantage of saving a voice. He selects irradiation in the following cases: 1. Cases unsuitable for laryngofissure in which laryngectomy is contraindicated by age, temperament, or physical condition. 2. Cases where the posterior portion of the cord is reached but mobility is not impaired. 3. Extrinsic lesions by origin or extension or cases in which there are cervical metastases.

Cutler[9] uses an interrupted technique of irradiation in two types of cases where the choice between x-ray and surgery is difficult. These are cases where the lesion is too far advanced for laryngofissure and there is partial mobility of the cord, and in those patients whose general condition is too poor for laryngectomy. He gives 3,000 to 4,000 roentgens in six days and then waits for 12 days. If there is regression, x-ray is the selected treatment and it is continued. If there is no regression, a laryngectomy is done.

Tucker[24] uses surgery for intrinsic cancer and x-ray for extrinsic. He adds that if a recurrence occurs following laryngofissure that surgery followed by x-ray is usually indicated. Quick[22] has gone so far as to say that modern irradiation therapy renders total laryngectomy obsolete. Although it sounds as though there is competition between the surgeon and radiologist, this is not, and never should be, the case. The authors quoted have stressed that there should be cooperation between the two and that in

some cases a combination of the two methods will be beneficial. The radiologist in particular must be most alert when he is treating a lesion amenable to surgery. If it does not respond favorably surgery should be done early.

The present efficacy of x-ray therapy depends upon the employment of methods of irradiation developed by some of the pioneers of radiology. In general it can be said that the method of treatment has been fairly well standardized and is patterned after that first used by Coutard.[4] Most of the cases in our series have been treated using 200 KV at 20 Ma using a 50 cm target skin distance. A filter of 1 mm Cu giving a HVL of 1.03 mm of Cu is used. For the more extensive lesions we use portals of 100 sq. cm or larger. For the endolaryngeal carcinomas we use a field of 8 x 8 cm. We deliver 300 r at a treatment giving six treatments a week. For the endolaryngeal tumors we treat until a depth dose of 4,500—5,000 r is reached. When we use the larger portals we give a depth dose of 4,000—4,500 r. For the neck of average diameter about 15 treatments to each lateral portal are required. If these are not sufficient, we increase the size of the daily dose so that practically all of our cases are given 30 treatments. This usually requires five to six weeks.

The plan of therapy we have used as outlined above is fairly similar to that used by others.[1, 12, 14, 17, 19, 23] del Regato[1] protracts his therapy to five or six weeks and uses large fields in the tumors of the laryngopharynx. Garcia[12] delivers a tumor dose of 4,400 r $+$ 10 per cent in 30 days but only if the port is $\overline{50}$ sq. cm. or smaller. For larger portals they lower the dosage. Harris and Klemperer[14] give a little smaller dose to the lateral portals but bring up the total dose by using an anterior field to which they give 1,000—2,000 r. Lenz[17, 18] gives a slightly smaller dose and protracts the treatments to 40, while Martin[19] gives a little larger dose in 20 treatments. Quick[23] states that the maximum safe dose should be given regardless of the radiosensitivity of the lesion. Coutard[6] and Cutler[8] feel that for the more infiltrative and radioresistant tumors the full dose should be given in a shorter time. The concentration therapy as used by Cutler[10] calls for the delivery of the full treatment in about 18 days. He has given the series in as short a period as 11 days but found a higher frequency of serious complications.

In general, then, the treatment we have used is much the same as that elsewhere except that our total dose is a little higher.

Some cases may benefit by a combination of surgery and x-ray. Lenz[17] feels that when the tumor has invaded the laryngeal cartilage it is best treated by surgery followed by x-ray. In our series four were treated by laryngofissure with subsequent x-ray and 14 were treated by laryngectomy followed by x-ray. X-ray may precede surgery particularly when x-ray is used to treat cancer amenable to surgery and the response of the tumor is not adequate. To determine this Coutard[5] has used the x-ray film as an aid to inspection in determining the regression of the tumor. Quick[23] and Cutler[10] both feel that properly given irradiation does not seriously hamper subsequent surgery. Brunschwig[2] has reported a series of five cases in which he has done panlaryngectomy following radiation therapy with good palliation.

The x-ray therapy as outlined above is a major procedure. The severity of the reaction expected should be explained to the patient at the first treatment. Usually the first 15—20 treatments cause little difficulty but then the patient develops a severe mucositis with pain on swallowing. The voice becomes hoarse and an edema of the larynx occurs which occasionally may necessitate tracheotomy. The patient loses a desire for food and has a thick, tenacious mucous which is difficult to raise. We initially encourage a good diet, daily exercise and give multivitamins daily. Occasionally it is necessary to hospitalize the patient for tube feeding and the administration of intravenous fluids and glucose. For the skin reaction we have found Nupercainal or Alvagel ointment to be efficacious. During the severe reaction the patient requires considerable encouragement and sympathy. Once healing begins it continues rather rapidly. The skin reaction may show remarkable improvement in a few days time.

The difficulties described above are due to the x-ray reaction. There are also others which Coutard[4] lists as the late complications. There may be persistence of the dryness of the mouth and throat and loss of taste for 2—3 years. Cutaneous atrophy with discoloration and telangiectasis may occur. More serious yet is ulceration and chondronecrosis. Cutler[17] says that chondronecrosis is apt to occur if the cartilage has been invaded by bacteria or cancer cells. He feels that it occurs more readily when large doses of x-ray are given in a short time. When the sulfanilamides were developed Quick[23] suggested their use to combat infection and thereby decrease the incidence of chondronecrosis. Hemorrhage may occur particularly in the lesions of the laryngopharynx. We have recently had a patient whose death was due to a hemorrhage from a lesion of the piriform sinus. Although the serious complications described may occur they are not common. The x-ray reaction itself is of the most importance to the patient.

It is difficult to evaluate and compare the results of x-ray therapy in cancer of the larynx as reported by various authors. Some authors have had the opportunity of treating less advanced cases where the

results are naturally better. Our series is made up for the most part of patients who are in or nearing the hopeless stage. This is shown by the fact that in the 34 patients treated by x-ray alone, 21 of them (61 per cent) had required a tracheotomy before treatment or had palpable cervical nodes. Either is a bad prognostic sign. Lenz[18] states that in cases requiring tracheotomy only about five per cent may be cured and that about 10 per cent of cases with neck nodes can be benefited. Of these 34 patients treated by x-ray alone, 24 are dead, eight are living, and two we have been unable to follow. For statistical purposes we assume that those we have been unable to follow are dead because of their cancer. The ones who have died have done so rather promptly. Ninety-one per cent of the 24 who are dead died in less than two years time. Cutler[10] has had much the same experience. For this reason two-year, three-year and five-year arrest results are used by various authors. For our entire series we have 23.4 per cent two-year arrests and 19 per cent five-year arrests. In the patients treated with x-ray alone, all of whom were advanced cases, we have 19 per cent two-year arrests and 10 per cent five-year arrests. For a comparison of results by various authors see Table I. The authors quoted in the table use in general the same method of treatment. We feel that the different results reflect in some measure the stage in which the patients are seen. The average five-year survival rate of all the results quoted is about 20 per cent. These are the inoperable cases.

TABLE I

Results in Treating Advanced Cancer of the Larynx

Author	Two Year Arrests		Five Year Arrests	
	X-ray	X-ray plus Surgery	X-ray	X-ray plus Surgery
Coutard	32%		27%	
Cutler			23%	
Delario—Reporting Average of Other Authors			19%	
Garcia et al			28%	
Lenz			19%	
Martin	16%			
Tice & White	19%	34%	10%	33%
	Both Series 23.7%		Both Series 19%	
Tucker				30%

Lenz[18] feels that in cases suitable for laryngofissure x-ray will give as good results as surgery, but Jackson[16] points out that in properly selected cases surgical treatment has the best statistical results. In the early cancer of the true cord laryngofissure gives 80—85 per cent cures.[15, 24] Laryngectomy in suitable cases yields 50—60 per cent cures.[16, 20] To compare with these results Cutler[10] using x-ray in cases where laryngofissure could have been done obtained 71 per cent five-year cures and in cases where laryngectomy could have been done there were 55 per cent five-year cures.

The results given above indicate that where the cancer permits a choice between x-ray therapy and surgery the social status and occupation of the patient should be considered. The preservation of laryngeal voice would be of greatest importance to some patients. It is feasible that the intelligent patient may be allowed to make the choice.

CONCLUSION

1. Cancer of the endolarynx gives symptoms early and has a high rate of curability. Cancer of the laryngopharynx may give symptoms late but it is usually radiosensitive and responds quite well to irradiation.

2. The radiosensitivity of cancer of the larynx depends more on its site of origin than on its histology.

3. The two most important features in the treatment are:

   a. Selection of the type of treatment for the patient, i.e. irradiation or surgery depending upon the origin and extent of the cancer.

   b. The technique of treatment. The most generally used irradiation is that of 200 Kv giving a tumor dose of 4,000—5,000 r in about 30—40 days. The indication for laryngofissure or laryngectomy is quite definite.

4. In the early properly selected case laryngofissure gives better statistical results than irradiation. In patients needing laryngectomy irradiation will give as good results as the indicated surgery.

5. Irradiation results in about 20 per cent of five-year cures in inoperable advanced cases of cancer of the larynx.

BIBLIOGRAPHY

1. Ackerman, Lauren and del Regato, Juan, "Cancer—Diagnosis, Treatment, and Prognosis," C. V. Mosby Co., St. Louis. 1947.

2. Brunschwig, Alexander, "Panlaryngectomy for Advanced Carcinoma of the Larynx," Surgery, Gyn. and Obst. 76: 390-394. 1943.
3. Clerf, Louis H., "Keratosis of the Larynx," J.A.M.A. 132: 823-826. 1946.
4. Coutard, Henri, "Roentgen Therapy of Epitheliomas of the Tonsillar Region, Hypopharynx and Larynx from 1920 to 1926," Am. J. Roentgenol. and Rad. Ther. 28: 313-331. 1932.
5. Coutard, H. and Baclesse, F., "Roentgen Diagnosis During the Course of Roentgen Therapy of Epitheliomas of the Larynx and Hypopharynx," Am. J. Roentgenol. and Rad. Ther. 28: 293-312. 1932.
6. Coutard, Henri, "Present Conception of the Treatment of Cancer of the Larynx," Radiology. 34: 136-145. 1940.
7. Cutler, Max, "Cancer of the Larynx," J.A.M.A. 115: 1339-1344. 1940.
8. Cutler, Max, "Concentration Method of Radiotherapy for Cancer of the Mouth, Pharynx and Larynx," J.A.M.A. 117: 1607-1610. 1941.
9. Cutler, Max, "Cancer of the Larynx—Radiotherapeutic Test as an Aid in Choosing Between Operation and Irradiation," Archives of Otolaryngology. 39: 53-58. 1944.
10. Cutler, Max, "Cancer of the Larynx—Five-Year Results of Concentration Radiotherapy," Archives of Otolaryngology. 43:315-330. 1946.
11. Delario, A. J., "Roentgen and Radium Therapy," F. A. Davis Co. Phil. 1938.
12. Garcia, Manuel, Schlosser, Joseph and Marino, Joseph, "Cancer of the Larynx and of the Pharynx," New Orleans M. & S. J. 98: 497-502. 1946.
13. Hammond, Arthur, "Diagnosis and Treatment of Cancer of the Larynx," Archives of Otolaryngology. 35: 1-29. 1942.
14. Harris, William and Klemperer, Paul, "Pathologic Differentiation Between Radiosensitive and Nonradiosensitive Malignant Neoplasms of the Larynx," Archives of Otolaryngology. 28: 355-370. 1938.
15. Jackson, Chevalier and Jackson, Chevalier L., "Treatment of Cancer and Allied Disease," Pack and Livingston. Ed. P. Hoeber, New York. 1940.
16. Jackson, Chevalier L., "Treatment of Cancer of the Larynx," South. Med. Jour. 34: 243-254. 1941.
17. Lenz, Maurice, "Treatment of Cancer and Allied Diseases," Pack and Livingston. Ed. P. Hoeber, New York. 1940.
18. Lenz, Maurice, "Causes of Failure of Roentgen Therapy in Cancer of the Larynx," Am. J. Roentgenol. and Rad. Ther. 46: 21-29. 1941.
19. Martin, Hayes and McNathin, Robert, "Treatment of Cancer of the Pharynx, Tonsil and Extrinsic Larynx by Divided Doses of External Radiation," Am. J. Roentgenol. and Rad. Ther. 32: 717-729. 1934.
20. New, G. B. and Waugh, J. M., "Curability of Carcinoma of the Larynx," Surg., Gyn. and Obst. 58: 841. 1934.
21. Orton, Henry, "Cancer of the Laryngopharynx," Archives of Otolaryngology 28: 344-354. 1938.
22. Quick, Douglas, "Carcinoma of the Larynx," Am. J. Roentgenol. and Rad. Ther. 38: 821-853. 1937.
23. Quick, Douglas, "Treatment of Laryngeal Cancer by Irradiation," Am. J. Roentgenol. and Rad. Ther. 46: 11-20. 1941.
24. Tucker, Gabriel, "Cancer of The Larynx—Modern Diagnosis and Treatment," Pennsylvania Med. Jour. 48: 809-811. 1945.

THE TREATMENT OF LEUKEMIA AND ALLIED DISORDERS WITH URETHANE (ETHYL CARBAMATE)* **

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In 1946 Haddow and Sexton[1] observed that urethane (ethyl carbamate) inhibited the growth of tumors in experimental animals. While testing the effect of the drug on advanced cases of malignant disease in man, a fall in the leucocyte count was observed which suggested the trial of urethane in patients with leukemia. Paterson, Thomas, Haddow and Watkinson[2] reported the results on patients with leukemia. Thirty-two cases in all were treated, 19 of which were of the myelogenous type (18 chronic, 1 acute) and 13 of the lymphogenous type (12 chronic, 1 acute). The investigators concluded that the effects of urethane therapy were remarkably similar to those obtained by the standard x-ray methods with which they were compared. No permanent benefit resulted from the therapy as relapses occurred. They also administered urethane in 13 cases of advanced carcinoma of the breast and in 11 cases of other types of malignant disease. In three cases of carcinoma of the breast and four of the miscellaneous group there was a temporary diminution in the size of the lesions.

Schulze[3] treated seven cases of chronic leukemia (five myelogenous, two lymphatic) and observed the best results in the myelogenous type. The splenic tumors decreased in size and when anemias existed, the hemoglobin and erythrocytes increased. In a subsequent report Schulze, Fritze and Müller[4] stated that in true polycythemia the splenic tumor was reduced in size but the blood picture was not altered. Chronic lymphadenoses showed only a reduction in leucocytes. Urethane had no effect in acute myelosis. Dustin[5] treated eight cases of chronic myelogenous leukemia with favorable results in five patients.

In this study the preliminary results of urethane therapy in 27 patients with leukemia or allied disorders will be reported. The following cases were observed: chronic myelogenous leukemia, seven; chronic lymphatic leukemia, five; acute lymphatic leukemia, four; acute myelogenous leukemia, one; acute monocytic leukemia, four; polycythemia vera, four; reticuloendotheliosis, one; and multiple myeloma, one. The drug was administered orally in a simple solution so that each ounce contained two grams of urethane. Careful periodic clinical and hematologic observations were made.

CHRONIC MYELOGENOUS LEUKEMIA

A total of seven patients with chronic myelogenous leukemia were treated with urethane. It is in

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this group of patients that the best results were obtained. Observations were made over a period of from two and one-half to eleven months. For purposes of discussion these will be divided into two groups, those who had received previous therapy of any kind, and those who had received x-ray therapy before urethane was administered.

Four patients had never received previous therapy. From three to six grams of urethane per day was given in divided daily doses until the desired hematologic and clinical response was obtained. Figures 1 and 2 illustrate the hematologic response. Figure

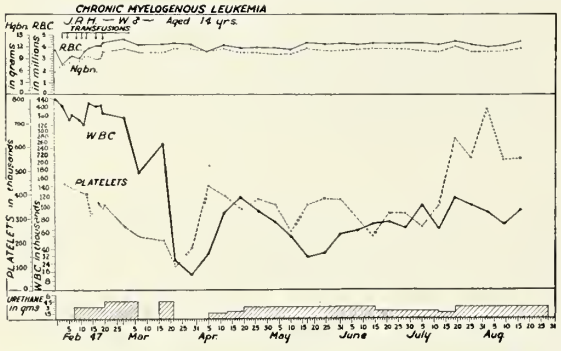


Figure 1. The response to urethane in a case of chronic myelogenous leukemia. The clinical response has been excellent. In December, 1947, his clinical condition was still satisfactory.

1 illustrates a case still under treatment (Dec. 1947). The total dosage of the drug has been 589 gm. in 10.5 mo. and illustrates the low level of toxicity. The patient is clinically in excellent condition and in December 1947 the leukocyte count was 21,000, erythrocyte count 4,300,000 and hemoglobin 74 per cent (11.5 gms.). Figure 2 illustrates an excellent hematologic response. In this case the NPN and

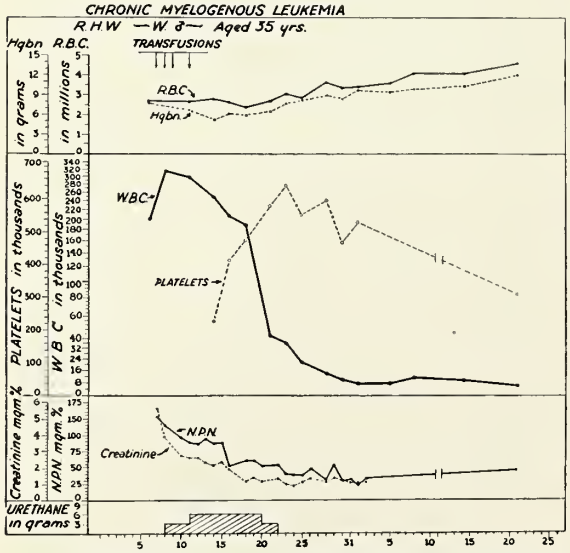


Figure 2. Chronic myelogenous leukemia. Note the decrease in the NPN, creatinine and leucocyte level after urethane therapy. The erythrocyte count and hemoglobin also increased.

creatinine were also elevated. After urethane therapy (69 gm. in 14 days) the leucocyte count, NPN and creatinine became normal and there was a gradual rise in the erythrocytes and hemoglobin. The spleen markedly decreased in size in three patients. One patient failed to respond to urethane and improved markedly with subsequent x-ray therapy.

Three patients were observed who had previously received x-ray therapy and were in the terminal stages of their leukemic disease. These patients had marked splenomegaly and severe anemia. In each case urethane failed to affect the course of the disease in any manner whatsoever.

CHRONIC LYMPHATIC LEUKEMIA

Five cases were treated. They were observed over periods of from one to six months. Only one had previously been given x-ray therapy. Four of the patients were of the true leukemic type with leukemic peripheral blood findings. One patient had lymphadenopathy, generalized, with a normal peripheral blood. A lymph node biopsy and bone marrow studies revealed chronic lymphatic leukemia of the sub-leukemic type.

Four of the patients responded well to urethane therapy (average daily dosage, 3 grams.). Usually, however, the patient complained of nausea or anorexia long before the lymph nodes decreased to the desired size. It was possible in only one case to cause the lymph nodes to entirely disappear. In general the response to urethane was only partially satisfactory and not as good as observed with x-ray therapy. Subsequent supplemental x-ray therapy has been necessary in two cases.

One patient was treated who had previously received x-ray therapy. (Figure 3). The lymph nodes and spleen were enlarged and a severe anemia existed requiring numerous transfusions. The leucocyte count dropped tremendously and the lymph nodes and spleen decreased markedly in size (345 gms. urethane in 91 days). The anemia could not

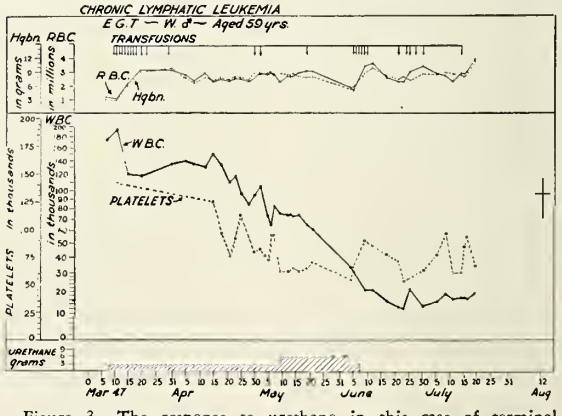


Figure 3. The response to urethane in this case of terminal chronic lymphatic leukemia was not good. X-ray therapy had been given previously over a long period of time. Although the leukemic condition improved clinically and hematologically the anemia did not and numerous transfusions were required.

be corrected and the patient ultimately expired from his leukemic disease.

THE ACUTE LEUKEMIAS

Fourteen patients with various acute leukemias were treated with urethane. In general the results were poor. The following cases were treated: acute lymphatic leukemia, four; acute myelogenous leukemia, one; and acute monocytic leukemia, four.

The dosage of urethane was less than given in the chronic states. One gram a day was given initially and elevated to two grams a day if tolerated well. No acute fulminating untoward reactions were observed. Whether or not urethane modified the course of the disease is indeed doubtful. No dramatic response was observed in any case.

POLYCYTHEMIA VERA

Four patients with polycythemia vera were treated and were observed over a period of from 2½ to 5½ months. The response to urethane was disappointing, both clinically and hematologically. Only a slight decrease in erythrocytes occurred. Urethane therapy is not a method of choice.

MISCELLANEOUS DISEASES

One case of reticuloendotheliosis and one of a fulminating multiple myeloma were treated with urethane. In neither instance was the clinical course of the disease affected.

DISCUSSION

The available reports on urethane therapy are chiefly in the British and German journals. The best clinical and hematologic results in our series were obtained in chronic myelogenous leukemia. This is in agreement with others.[2, 3, 4] The response to urethane in chronic lymphatic leukemia is less good and more variable than in myelogenous leukemia. This is also in accord with other reports.[2] Urethane had no beneficial effect in either myelogenous or lypmhatic leukemia in the terminal stages when x-ray therapy was no longer of value. The therapeutic effect in the acute leukemias was disappointing. The results in polycythemia vera were not all to be desired.

Perhaps the most distressing symptoms observed during the oral administration of urethane are nausea and anorexia. Therapy had to be discontinued in five patients. Other toxic reactions are rare but do occur. Paterson, Thomas, Haddow and Watkinson[2] reported a marked leukopenia in a case of carcinoma of the breast. A moderate leukopenia was observed in nine other cases. In one case of myelogenous leukemia they reported a late and dangerous drop in both the white and red cells, but recovery took place after transfusion. One patient died with aplasia which the investigators felt was partly due to urethane. Webster[6] reported a fatality in a case of chronic myelogenous leukemia after treatment with urethane.

In one of our cases of chronic lymphatic leukemia there was a decrease in all the formed elements including the blood platelets. Urethane was discontinued and the blood picture returned to normal very rapidly. The blood platelets were decreased in six other patients with chronic myelogenous leukemia, chronic lymphatic leukemia and polycythemia vera. No hemorrhagic episode occurred in any individual. The details of these untoward results will be reported later.

The total dosage of urethane to be used orally in the treatment of leukemic diseases is indeed variable. This has been noticed by other investigators.[2] The average dosage was three to six grams a day in divided doses until the desired therapeutic response was obtained. The total amount used in a given case is again variable as a maintenance dose should be ultimately established, this amount being one to two grams a day. When the dosage is being considered, the amount necessary to produce the desired initial effect and the maintenance dosage should be considered in daily quantities rather than total amounts given over a period of time.

The method of action of urethane is not known. Dustin[5] and Webster[6] have published excellent reviews on the possible modes of action. Schulze[3] states it may be due to its toxic effect on mitosis. Kirschbaum and Lee[7] studied the effect of urethane on the leucocytes of mouse myelogenous leukemia and observed that the administration of a single anesthetic dose produced within 24 hours a drop in the leukocyte count and the appearance of many mature cells in the bone marrow. Other observations on mice are of interest[8] in that doses of urethane that affected leukemic marrow produced no striking cytologic alterations in the bone marrow of normal mice.

SUMMARY

The treatment of chronic myelogenous leukemia with urethane (ethyl carbamate) produces about the same clinical and hematologic results as standard x-ray therapy.

The therapeutic response of chronic lymphatic leukemia is less satisfactory and more variable than observed in chronic myelogenous leukemia.

The clinical course of the acute leukemias is not affected by urethane.

Polycythemia vera responds only partially to urethane. One case of reticuloendotheliosis and one of multiple myeloma were treated and the clinical course of the disease was not affected in either instance.

Nausea and anorexia are not infrequent occurrences when the drug is given orally. Other toxic effects have been noticed and the patients treated

should be observed at frequent intervals. Continued investigation is necessary to establish the proper procedure, dosage, toxic levels and modes of action of urethane.

BIBLIOGRAPHY

1. Haddow, A., and Sexton, W. A.: Influence of Carbamic Esters (Urethanes) on Experimental Animal Tumours, Nature, London, 157:500, 1946.
2. Paterson, E., Thomas, I. A., Haddow, A., and Watkinson, J. M.: Leukemia Treated with Urethane Compared with Deep X-ray Therapy, Lancet, 1:677, 1946.
3. Schulze, E.: Deutsche Med. Wochenscrift: Die Behandlung chronischer Leukämien mit Urethan, 72:153, 1947.
4. Schulze, E., Fritze, E., and Müller, H. H.: Die Virkung des Urethans bei Leukämien, Deutsche Med. Wochenscrift, 72:371, 1947.
5. Dustin, P.: Modifications de l'Hematopoiese dans la Leucemie Myeloide Chronique Traitée par le Carbamate d'Ethyle, Bruxelles-Medical, 27:1763, 1947.
6. Webster, J. J., Urethane in Leukemia, J. Am. Med. Assn., 135:901, 1947.
7. Kirschbaum, A., and Lu, C. S.: Effect of Urethane on Maturation of Leukocytes of Mouse Myelogenous Leukemia, Proc. Soc. Exper. Biol. & Med., 65:62, 1947.
8. Engstrom, R. M., Kirschbaum, A., and Mixer, H. W.: Effect of Urethane on Mouse Myelogenous Leukemia, Science, 105:255, 1947.

EPIDERMOID CARCINOMA OF THE HAND*

Philip J. Clark, M.D.,
and Thomas M. Johnson, M.D.
Kansas City, Kansas

In the past 25 years, 27 patients with epidermoid carcinoma of the hand have been treated at the University of Kansas Medical Center. These patients were all treated in the hospital. A study of these 27 patients has stimulated us to formulate a general plan for the treatment of this type of carcinoma.

Of epidermoid carcinomas in general, Warren and Hoerr[1] have found the hand and fingers involved in 20 per cent of all cases. Campbell[2] and Mason's[3] reviews indicate that the incidence is five to 10 per cent.

A very high percentage of the cases of epidermoid carcinoma of the hand is found in the aged. Adair[4] emphasized the importance of degenerative changes in the skin of the aged which predisposes to this type of lesion. In senile skin there is atrophy of the sebaceous glands and loss of subcutaneous tissue. This type of skin cracks easily, ulcerations heal slowly, and the factor of chronic irritation due to sun, exposure to weather, and minor trauma apparently predisposes to malignant change. The disease is more common to males.

The dorsum of the hand has several anatomic peculiarities. In this area the skin is thin; there is little subcutaneous tissue; the blood supply is easily compromised; the underlying tendons are readily destroyed if exposed; and function is impaired by long immobilization due either to the extent of the growth or to the treatment.

Writers on this subject, Gates and Warren,[5] DeBell and Stevenson,[7] Mason[3] and Adair[4] agree that epidermoid carcinomas of the dorsum of the hand are usually of low grade malignancy. These tumors remain localized for a considerable period, and spread by local extension and lymphatics is comparatively late. A high percentage of cures may be obtained if lesions are adequately treated, even late in the course of the disease.

Lymph gland involvement is of paramount importance in prognosis and treatment of epidermoid carcinoma of the hand. Campbell[2] reported that 44 per cent of the cases seen at the University of Michigan had palpable epitrochlear or axillary nodes at the time of initial examination. Of this group, 50 per cent developed recurrences or ultimately died of carcinoma. DeBell and Stevenson[7] found metastatic carcinoma in only 50 per cent of their cases in which gland dissection was done for palpable nodes. However, these authors recommend that enlarged nodes should be considered malignant until proved otherwise. Taylor, Nathanson, and Shaw[8] demonstrated that lymph nodes larger than 2 cm. in diameter usually contain metastatic carcinoma. Mason[3] states that he failed to find metastatic carcinoma in nodes removed which were not clinically palpable.

In a comprehensive analysis of epidermoid carcinoma, Warren and Hoerr[1] demonstrated that the size of the lesion when first treated is the most important factor in prognosis. They found that lesions larger than five cm. in diameter result in an 82 per cent mortality as compared with a mortality of seven per cent when the lesions are less than one cm. in diameter. These authors found a definite relationship between the size of the tumor and the extent of lymph node involvement. Lesions one cm. in diameter had metastases in five per cent, and lesions five cm. in diameter had metastases in 40 per cent of the cases.

An analysis of the 27 cases of carcinoma of the dorsum of the hand treated at the University of Kansas Medical Center reveals that there has been no clear cut outline of therapy for this tumor. These cases have been admitted at random on the x-ray, plastic surgery, and general surgery services. The group is too small to allow valid statistical analysis of long time survival, but it may be of interest to outline the procedures and results of the treatment used. (Table I).

In this series, 20 patients were males and seven

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females, an approximate ratio of 3:1. The average age was 71.2 years, the oldest patient being 92 and the youngest 50.

All lesions were biopsied for accurate diagnosis and grading. They were all graded Broders I or II. The size of the lesion at the time of initial examination was one of the important factors in determining treatment. Of 16 cases treated by x-ray, or excision, with or without graft, all but one had lesions less than four cm. in diameter. Although two patients had local recurrences, no metastatic disease or death from cancer was reported from this group of 16 cases. Of the remaining 11 cases requiring extensive local excision or amputation, and axillary dissection, all but one had lesions larger than five cm. in diameter. Many of these lesions were deep and fixed to the underlying structures. Seven cases had axillary metastases when first seen. Of these cases, three are living and well three, four, and six years after excision and axillary dissection. One patient succumbed on the 11th postoperative day, two patients died within one year of recurrent disease. Three of the patients could not be followed. Five of the older patients died of other diseases without evidence of recurrence of the cancer.

CONCLUSIONS

This brief summary demonstrates the importance of the size of the lesion in relation to its treatment and prognosis.

Biopsy of all lesions is advised for diagnosis and grading.

Surgical excision of epidermoid carcinoma of the dorsum of the hand, with or without skin grafting, is recommended for the local treatment.

Axillary and epitrochlear dissection is recommended if nodes are palpable.

Amputation is reserved for those cases having

TABLE I

Table I summarizes the pertinent factors in the study of the above 27 cases.

	Age	*Sex*	*Race*	*Size in cm.*	*Depth of Lesion*	*Palpable Nodes*	*Treatment*	*Results*
1	64	M	W	2	Superficial	no	Radium needles	Well 3 years
2	69	M	W	3	"	no	X-ray	Well 2 years
3	83	M	W	2	"	no	X-ray	Not traced
4	72	M	W	2	"	no	X-ray	Died 2 years another disease
5	80	M	W	3.5	"	no	X-ray	Well 5 years
6	88	M	W	2	"	no	X-ray	Well 6 years
7	65	M	W	3.5	"	no	X-ray	Died 3 years another disease
8	68	F	W	6	"	no	X-ray, later excision and graft	Died 10 years another disease
9	67	F	W	1.5	"	no	X-ray, later excision and graft	Well 7 years
10	76	F	W	4	"	no	Excision only	Not traced
11	50	M	W	1.5	"	no	Excision, x-ray to epitrochlear and axillary glands	Well 10 years
12	64	M	W	3	"	no	Excision, x-ray to epitrochlear and axillary glands	Well 3 years
13	72	M	W	3	"	no	Excision and skin graft	Died 2 years another disease
14	83	F	W	2.5	"	no	Excision and skin graft	Not traced
15	69	M	W	4	"	no	Excision and skin graft	Well 4 years
16	53	M	W	2	"	no	Excision and skin graft	Well 6 months
17	76	M	W	4	deep	no	Partial amputation, fingers and hand-skin graft	Well 4 years
18	76	M	W	6	"	yes	Partial amputation, fingers and hand-skin graft	Died 11th post-op. day
19	69	M	W	5	"	no	Partial amputation, fingers and hand-skin graft	Well 2 years
20	85	M	W	11	"	no	Amputation forearm	Died 2 years another disease
21	64	F	W	6	"	no	Amputation forearm	Well 3 years
22	92	F	W	5	"	yes	Amputation forearm	Well 6 months
23	68	M	W	10	"	yes	Amputation forearm—epitrochlear and axillary node dissection	Well 3 years
24	56	M	C	8	"	yes	Amputation forearm—epitrochlear and axillary node dissection	Well 4 years
25	58	M	W	6	"	yes	Interscapulothoracic amputation	Died 1 year of recurrence
26	67	F	W	8	"	yes	Excision—skin graft—axillary dissection	Well 6 years
27	64	M	W	6	"	yes	Arsenic paste elsewhere, later partial amputation hand, and axillary and epitrochlear dissection	Died 1 year of recurrence

large ulcerated areas with destruction of the tissues of the hand and marked deformity.

BIBLIOGRAPHY

1. Warren, S., and Hoerr, S.: A Study of Pathologically Verified Epidermoid Carcinomas of the Skin, Surg. Gynec. & Obst., 69:726, Dec. 1939.
2. Campbell, D. A.: Carcinoma of the Upper Extremity, Arch. Surg., 43:803, Nov. 1941.
3. Mason, M. L.: Carcinoma of the Hands and Feet, Surgery, 5:27, Jan. 1939.
4. Adair, F. E.: Epitheliomas of the Hand: Types and Treatment, S. Clin. North America 13:423, April 1933.
5. Gates, O., and Warren S.: The Grading of Epidermoid Carcinoma, Surg. Gynec. & Obst., 58:962, June 1934.
6. Mason, M. L.: Tumors of the Hand, Surg. Gynec. & Obst., 64:129, Feb. 1937.
7. DeBell, P. S., and Stevenson, T. D.: Squamous Cell Epithelioma of the Extremities, Surg. Gynec. & Obst., 63:222, Aug. 1936.
8. Taylor, G. W., and Nathanson, I. T., and Shaw, D. T., Epidermoid Carcinoma of the Extremities With Reference to Lymph Node Involvement, Ann. Surg., 113: 268, Feb. 1941.

THE NEUROGENIC BLADDER OF POLIOMYELITIS

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Urological complications of poliomyelitis occur often enough to warrant an interest in the subject. It is the purpose of this paper to describe the neurogenic bladder of poliomyelitis and to discuss some of the complications of the disease.

Temporary dysfunction of the urinary bladder is seen in many inflammatory, degenerative, and traumatic diseases of the central nervous system. With such dysfunction the term neurogenic bladder is used to signify altered nerve supply to the bladder. Anatomically there may be three types: (1) those resulting from supranuclear disease, (2) those resulting from disease in the spinal cord, (3) those resulting from disease of the afferent or efferent neurones to the bladder. The classification of McLellan is of more practical value.[1]

1. The Uninhibited neurogenic bladder results from disease in the higher centers or cord which causes loss of cerebral control of the bladder reflex. (Example—loss of control of bladder following a cerebral accident.)

2. The Reflex neurogenic bladder results from complete section of the cord above the bladder reflex (sacral cord.)

3. The Autonomous neurogenic bladder results from destruction of the motor and sensory components of the reflex, such as may occur with a crushing injury to the sacral cord.

4. The Atonic neurogenic bladder results from disease of the posterior columns of the cord with loss of the sensory component of the bladder. (Example—tabes dorsalis.)

It is believed that the nervous control of the bladder consists of a simple spinal reflex and a suprasegmental conditioning reflex.[2] The afferent and efferent fibers of the spinal reflex are mediated mainly through the pelvic nerve of the parasympathetic system. The sensory and proprioceptive sensations are carried by fibers running with the parasympathetic nerves. The sympathetic system plays no significant role in the normal act of micturition and can be disregarded. The normal stimuli of the reflex is the filling of the bladder until the proprioceptive impulses have reached a sufficient threshold to produce discharge of the motor neurones resulting in a voiding contraction. In the normal individual the discharges of the lower motor neurones are influenced by the corticospinal tract or efferent limb of the suprasegmental reflex. The activity of the upper motor neurones in turn is guided by the sensory impulses arising from the bladder, which are transmitted up the various afferent pathways to consciousness. Of secondary importance is the voluntary sphincter which is innervated by the internal pudendal nerves. The external sphincter can be closed voluntarily, but relaxation is involuntary.

Poliomyelitis is a disease of the anterior horn cells of the spinal cord, characterized by paralysis of somatic muscle. Although visceral lesions are reported in fatal cases of poliomyelitis, we do not anticipate paralysis of smooth muscle organs. Involvement of the urinary bladder and colon, however, occurs in 10 to 20 per cent of the cases of acute poliomyelitis.[3] Toomey reported 60 cases of acute urinary retention in 386 cases of acute poliomyelitis.[4] In 42 of Toomey's cases the bladder paralysis preceded the somatic involvement. Temporary paralysis of the bladder occurred in eight per cent of the poliomyelitis cases seen at the University of Kansas Medical Center during the 1946 epidemic. One case of permanent paralysis of the bladder was seen and will be described later. Careful review of the literature fails to show a similar case. Generally the bladder dysfunction like the atony of the colon is of short duration and can be relieved by intermittent catheterization or indwelling catheter for a few days.

The nuclei of the motor neurones to the bladder and colon take their origin from the visceral efferent column which is posterior and lateral to the

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anterior horn area of the spinal cord. The efferent or motor neurones from the second, third and fourth sacral segments pass through the anterior horn and must be susceptible to disease in that area, causing temporary or permanent damage to the motor neurone, depending upon the amount of pathology present in that area. A bladder devoid of motor innervation should then present the following characteristics:

1. Sensation to temperature, pain, and proprioceptive stimili should be present since the afferent limb of the bladder reflex is intact.

2. Intravesical hydrostatic pressure should be low and bladder capacity high.

3. The final voiding contraction should be absent.

4. Voiding should occur only by overflow incontinence.

This type of neurogenic bladder is produced by poliomyelitis as demonstrated by numerous cystometric examinations of patients with bladder paralysis due to acute poliomyelitis. Figure 2 shows the characteristic cystometrograph. Figure 1 shows a normal cystometrograph. This type of neurogenic bladder can also be produced by the administration of tetra-ethyl ammonium bromide which will produce a total blockade of the autonomic ganglia in man.[5] It has also been seen by the author in a soldier who had extensive shattering of the pelvis with loss of the pelvic nerves bilaterally. For this type of bladder we suggest the term "Motor Neurogenic Bladder."

REPORT OF A CASE OF PERMANENT BLADDER PARALYSIS DUE TO POLIOMYELITIS

R. C. No. 34711, a boy aged 16 years, was admitted to the University of Kansas Medical Center on October 13, 1946, with typical signs and symptoms of acute poliomyelitis. The onset of the illness occurred three days prior to admission and was characterized by fever, fatigue, progressive paralysis of the legs, and urinary retention requiring catheterization every six hours. On admission there was partial paralysis of the left biceps muscle, complete paralysis of both legs and thighs, and the abdominal muscles below the umbilicus. The cerebrospinal fluid showed 676 leucocytes per c.c., 92 per cent polymorphonuclears and eight per cent lymphocytes. Cystometric examination on numerous occasions revealed an atonic neurogenic bladder as shown below. In spite of many attempts at voiding, this patient was never able to elicit a voiding contracture. Resection of the internal sphincter likewise was futile. One year after the onset of the disease he was still on catheter drainage and had shown no appreciable improvement in the extensive paralysis of his lower extremities. There was complete motor paralysis of both legs, thighs, and hips without sensory loss. Vesical calculi were crushed transurethrally on three occasions.

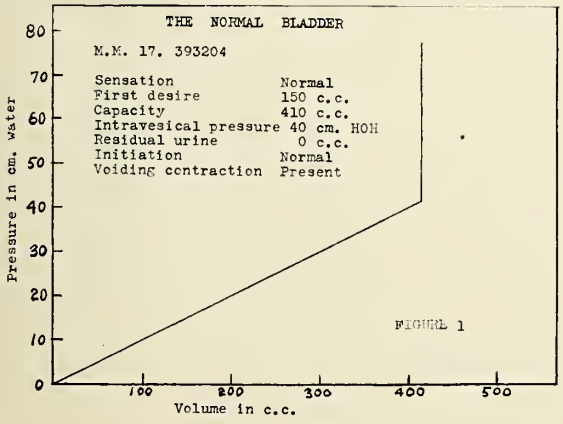


FIGURE 1

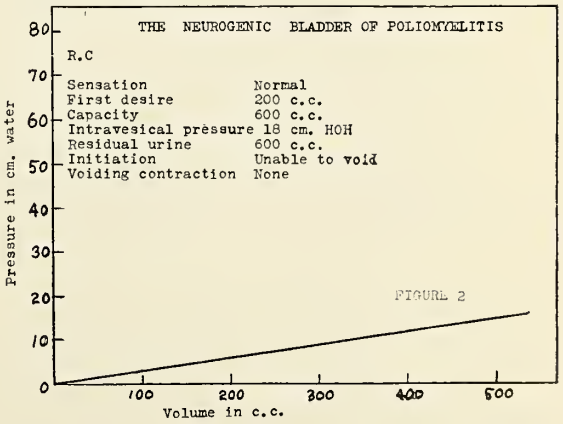


FIGURE 2

SUMMARY

The neurogenic bladder of poliomyelitis is described for the first time in the light of cystometric study. It is suggested that the term "the motor neurogenic bladder of poliomyelitis" be applied to this condition.

Temporary paralysis of the bladder occurs commonly in poliomyelitis. This is the only case of permanent paralysis of the bladder we have been able to discover.

If it is necessary to catheterize the bladder in poliomyelitis, every effort should be made to sterilize the urine later. Recumbency calculi should be watched for by periodic x-ray examinations.

BIBLIOGRAPHY

1. McLellan, Frederick C., The Neurogenic Bladder, Springfield, Illinois, Charles Thomas, 1942.

2. Langworthy, O. R., Kalb, L. C., Lewis, L. G., Physiology of Micturition, Baltimore, Williams and Wilkins Co., 1940.

3. Lawson, R. B., Garney, F. K., J.A.M.A., 135:2, 93-94, September 13, 1946.

4. Toomey, J. H., Amer. J. Dis. of Child., 45:1211, June, 1932.

5. Nesbit, R. M., Lapides, J., Valk, W. L., J. Urology, 57:2, 242-250, February, 1947.

Cancer Control Activities at University of Kansas Medical Center

During 1947, 853 cancer cases were recorded in the central cancer registry of the State Board of Health from the University of Kansas Medical Center.

Facilities for treating cancer at the University of Kansas Medical Center are progressively increasing as local and national interest in the cancer problem increases. New surgical techniques for treatment of cancer of the cardiac end of the stomach, pancreas, esophagus and lungs are being used, thus offering some hope to the victims of these malignancies. The Surgical-Pathological Conference meets every Wednesday morning through the year.

Radiation therapy is administered by any one of four x-ray units, the largest of which has a capacity of 250 KVP. It is not unusual for 40 patients to receive roentgen or radium therapy in the Department of Radiology in one day. Two hundred milligrams of radium is available and through the kindness of the Kansas Division of the American Cancer Society a considerable quantity of additional radium has been placed on order.

We have available androgens and nitrogen mustard supplied through the recommendation of the Therapeutic Trials Committee of the Council on Pharmacy and Chemistry of the American Medical Association, so that we may play our part in the clinical investigation of the use of these substances in the treatment of malignancies.

In the diagnostic field we have the benefit of experience of department heads of national reputation, laboratory facilities prepared to do tissue study, general and special bacteriological work, general laboratory work and biochemistry. A blood bank prepared to supply blood on immediate notice is available. The diagnostic x-ray department is supplied with good equipment but is in need of more apparatus to handle the peak load each day.

Teaching of cancer diagnosis is begun in the sophomore year. A definite portion of the course in pathology is devoted to the study of all forms of malignancy. Through the next two years the student is given lectures in general surgery, medicine and the specialties on the diagnosis and treatment of cancer. During the senior year the student has the privilege of attending a weekly tumor clinic at which from four to seven cases of cancer are presented. The case may be a new, undiagnosed case, one completely worked up or a follow-up case. Through the years an attempt has been made to keep the class informal. It is well attended by the house staff, residents and interns, as well as students.

For two years a three-day postgraduate clinic has been held, devoted to the study of the cancer problem. This is sponsored by the Extension Division of the University of Kansas and the Kansas Medical Society through the Committee on Control of Cancer. Our recent three-day meeting, held in January, had an attendance of over 100 members.

A recent $25,000 grant by the U.S.P.H.S. will be used to establish a Department of Oncology. It is our hope that this department will carry on cancer research and assist research efforts in other departments. Coordination of the teaching of cancer will undoubtedly be under the supervision of this department.

Prepared by Committee on Control of Cancer

89th Annual Session, May 10-13, 1948

Wichita, Kansas

Final plans are now being made for the 89th annual meeting of the Kansas Medical Society, and advance publicity from members of the Sedgwick County Medical Society, who are serving as hosts for the session, indicates that an outstanding program will be presented. Social events for the entertainment of all members are also being arranged.

GENERAL SCIENTIFIC PROGRAM

Scientific sessions will begin at nine o'clock on Tuesday morning, May 11, and will continue through Thursday afternoon, May 13. Although the complete program has been outlined, a few details remain to be verified. The exact time of each speaker's appearance and a short summary of each paper to be presented will be published in the April issue of the Journal, the annual program number. In the meantime, members of the Kansas Medical Society can study the speakers' schedule below to learn when specialists on certain subjects will be heard.

Anesthesiology—Dr. Edward B. Tuohy, Georgetown Medical Center, Washington, D. C.—Tuesday afternoon and Wednesday afternoon.

Heart Disease—Dr. A. Carlton Ernstene, Cleveland, Ohio—Tuesday morning and Tuesday afternoon.

Medicine—Dr. Henry M. Winans, Dallas, Texas—Wednesday morning and Wednesday afternoon.

Medicine—Dr. Edward H. Rynearson, Mayo Clinic, Rochester, Minnesota—Thursday morning and Thursday afternoon.

Obstetrics and Gynecology—Dr. Willis E. Brown, Iowa University, Iowa City, Iowa—Wednesday afternoon and Thursday morning.

Pediatrics—Dr. Arild E. Hansen, University of Texas School of Medicine, Galveston, Texas—Tuesday morning and Tuesday afternoon.

Psychiatry—Dr. Baldwin L. Keyes, Philadelphia, Pennsylvania—Wednesday morning and Wednesday afternoon.

Surgery—Dr. Richard K. Gilchrist, Chicago, Illinois—Thursday morning and Thursday afternoon.

Surgery—Dr. Waltman Walters, Mayo Clinic, Rochester, Minnesota—Tuesday morning and Wednesday morning.

EENT SCIENTIFIC PROGRAM

A complete program for eye, ear, nose and throat specialists will be presented on Tuesday and Wednesday, May 11 and 12, as follows:

Eye—Dr. J. H. Judd, Omaha, Nebraska—Tuesday morning, Tuesday afternoon, Wednesday morning, Wednesday afternoon.

ENT—Dr. Lawrence R. Boies, Minneapolis, Minnesota—Tuesday morning, Tuesday afternoon, Wednesday morning, Wednesday afternoon.

ROUND TABLE LUNCHEONS

There will be five round table luncheons on Tuesday as follows: Surgery, Allis; EENT, Broadview; Pediatrics, Broadview; Heart, Lassen; Anesthesiology, Lassen.

All groups will be together for a combined round table luncheon on Wednesday, and three separate groups will meet on Thursday. The surgical group will meet at the Allis, those interested in medicine will meet at the Broadview, and those interested in obstetrics and gynecology will lunch at the Lassen.

GOLF AND MARKSMANSHIP TOURNEY

As usual, on the day preceding the scientific session, there will be a golf tournament and marksmanship tourney. Preliminary rounds and trials will start at ten o'clock Monday morning, and competitive matches are scheduled for one o'clock. A tournament dinner will be served that evening at the Broadview hotel. Golfing will be at the Meadowlark Golf club, at the corner of Harry and Oliver streets, and the shoot will be at the Ark Valley Gun club, across from Cessna Aircraft.

SOCIAL EVENTS

The big social event of the session, the annual banquet, will be held Wednesday evening on the Broadview roof. An entertaining program is being planned and a dance will follow.

On Tuesday evening there will be the usual stag party, at a place to be announced, and on the same evening there will be a special party for women physicians.

HOTEL RESERVATIONS

Each member who wishes to attend the 89th annual session will be responsible for his own hotel reservations. Those who have not already made arrangements for accommodations are urged to do so immediately. Among the hotels in Wichita are the following: Allis, Broadview, Commodore, Eaton, Hamilton, Lassen, McClellan, Shirkmere and Skaer.

COMMITTEE CHAIRMEN

The following Sedgwick county physicians are serving as chairmen of the various committees:

General Chairman—Dr. A. L. Ashmore
Program—Dr. George F. Gsell
Arrangements—Dr. A. E. Hiebert
Commercial Exhibits—Dr. George E. Milbank
Reception—Dr. J. P. Berger
Publicity—Dr. Louis A. Donnell
Scientific Exhibits—Dr. Harry O. Anderson
Woman's Auxiliary—Dr. Donald P. Trees
Housing—Dr. Bruce P. Meeker
Entertainment—Dr. Clyde W. Miller

PRESIDENT'S PAGE

To the Members of the Kansas Medical Society:

It is a pleasure for the Kansas Medical Society to extend greetings to the new dean of the School of Medicine, Dr. Franklin D. Murphy, and to wish him a full measure of success in his new assignment. It is an added pleasure to express gratitude and admiration to Dr. H. R. Wahl, who for more than 20 years has guided its destinies and brought it to its present high place in the field of medical education.

The gift from Dr. Bell and the Legislative Act of 1907 initiated the program of medical education in our state. Since that time many changes have been made, standards have been altered, old methods have been discarded to be replaced by more modern procedures. Constant progress and improvement have marked each and all of these changes. With full recognition of these facts and in a spirit of helpfulness and after much discussion with many interested Kansas doctors, we make a few suggestions for further improvement.

There are two physical problems crying for immediate solution. The first is to arrange all of the teaching facilities on the one location at Kansas City. This necessitates the erection of a new, especially designed, large building to house the preclinical year and a half now at Lawrence, as well as the pathological and research divisions still housed on Southwest boulevard. The second is the great need for more hospital beds to supply clinical material for teaching the number of students which must be accepted annually to supply the need for doctors.

Members of the faculty at present are men of high caliber and are poorly paid. It is evident by glancing at Table VIII on page 114 in this issue, that they would not be teaching if they looked upon financial gain as the only acceptable payment for their work. They must believe that "To keep a thing one must give it," and derive personal satisfaction in the care of the indigent and teaching prospective practitioners.

There are but three evident sources from which these large sums of money can come. The first of these in importance is the Legislature of the state of Kansas, which should have full credit for its understanding help in the past. The members of our profession should endeavor to acquaint prospective legislators with our needs so that they may be familiar with the facts. The torch of learning has always been held high in Kansas; let us not through negligence allow it to become dim. If appropriations are inadequate, the work of the medical school will suffer proportionately, if they are generous, the school will continue to progress. Members of the medical profession should proudly use the weight of their political influence to help the university secure the funds it so urgently needs. The second is Federal grants in aid which can only come if we do our full share in Kansas. The third is through contributions from individuals and institutions. It is hoped that we may soon initiate a long range program of contributions from as many sources as possible for the establishment of an endowment fund for our medical school.

The Kansas Medical Society looks upon the Medical School of Kansas as the fountain head of medical practice in this whole area. It cherishes the continuance of our pleasant relationship and pledges full cooperation to the School of Medicine and the new dean.

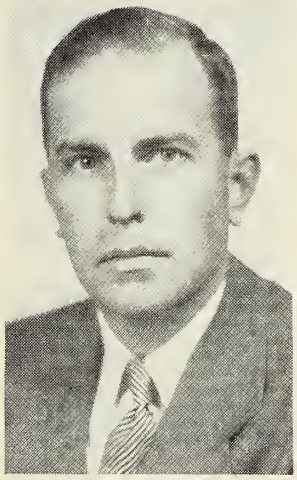
L. S. Nelson

President.

EDITORIALS

New Dean at Medical School

Dr. Franklin D. Murphy, 32, has been appointed dean of the University of Kansas School of Medicine to succeed Dr. H. R. Wahl, who is retiring after having served in that position for almost 25 years. Dr. Murphy will devote full time to the school after April 1, and will officially take over his duties as dean on July 1. Dr. Wahl will continue as head of the Department of Pathology and Bacteriology.



Dr. Franklin D. Murphy

Dr. Murphy is the son of the late Dr. Franklin E. Murphy, who had practiced medicine for nearly 30 years prior to his death in 1932 and had been clinical professor of medicine in the School of Medicine since its foundation.

The new dean was graduated from the University of Kansas with an A.B. degree in 1936, and then spent a year in Germany as an exchange scholar at the University of Goettingen, studying physiology under Dr. Hermann Rein. Upon his return to this country, he entered the University of Pennsylvania School of Medicine and received his M.D. in 1941. Successively, he was intern, resident and fellow in internal medicine at the hospital of the University of Pennsylvania.

In 1944 he entered the United States Army and was stationed for the greater part of the war in Memphis, attached to an army research project in tropical diseases. After separation from the army, he became associated with the University of Kansas School of Medicine in the Department of Internal Medicine. While serving as dean, he will also be an associate professor of medicine.

Dr. Murphy is a member of Beta Theta Pi, Nu Sigma Nu, Alpha Omega Alpha, Sigma Xi, and the American Federation for Clinical Research, and he is an associate of the American College of Physicians.

Dr. Wahl had announced several years ago that he wished to retire and would do so whenever a successor was appointed. He has served the university loyally and selflessly, and is entirely deserving of the many expressions of appreciation he is now receiving. His many friends in the medical profession are happy to note that he will continue to be associated with the School of Medicine.

Dr. Murphy is well prepared for his new duties and assumes the responsibilities of the administrator's post with the good wishes of the Kansas Medical Society and its individual members.

Second Annual University Number

With this issue the Journal of the Kansas Medical Society publishes its Second Annual University of Kansas School of Medicine number. The plan to print a special university issue was conceived last year, and the Journal's first complete number in tribute to the medical school was published in March of 1947. This issue, March, 1948, is likewise dedicated to the university in recognition of its many services to the medical profession.

Credit for the fine scientific and editorial material in this issue goes to Dr. James B. Weaver, chief of the Orthopedic Section at the University of Kansas School of Medicine and an associate editor of the Journal. When Dr. Weaver accepted an appointment as associate editor last spring, he also accepted responsibility for the University of Kansas issue. Several months ago he began work on the issue, arranging for scientific papers and gathering data for the editorial, "The University of Kansas Medical Center." This editorial answers many questions about the facilities and services of the medical center, outlines the physical plant, discusses enrollment in the medical school, patients cared for during the course of the past year, the number of faculty members and employees, and the salaries and stipends of instructors. The interesting tables accompanying the editorial give valuable statistical information.

The Editorial Board welcomes the opportunity of publishing this Second Annual University of Kansas School of Medicine issue and extends its most sincere thanks to Dr. Weaver for his splendid work.

The University of Kansas Medical Center

The University of Kansas Medical Center is composed of the University of Kansas Hospitals and the last two and one-half years of the University of Kansas Medical School and is located in Kansas City. The first year and one-half of the medical school still functions on the university campus at Lawrence. The Kansas City facilities are on two campuses about one and one-half miles apart. The three antiquated, inadequate and unsuitable buildings of the old medical school on the Rosedale campus overlooking Southwest boulevard are still in use. Housed

here, in unkempt and depressing surroundings, are the pathology and pharmacology departments and the psychiatric and pulmonary tuberculosis wards.

The main campus at 39th and Rainbow boulevard covers four square blocks and on it are situated nine buildings. The administration building, B ward building, children's pavilion, out-patient building, Eaton ward, and the connecting corridor are used for patients or services thereto. Hixon laboratory for research, Hinch hall (nurses' home), power plant and warehouse do not house patients. Two of these buildings, Hixon laboratory and the children's pavilion, were gifts to the medical school.

Thus, the University of Kansas Medical School is located on three different sites in two different cities. It has been common knowledge for many years that the divided medical school is less efficient and more costly than the unit school. Medical educators have repeatedly condemned the divided school, yet the state of Kansas has made no great effort to correct this basic fault and maintains one of the two schools in the United States still functioning in this manner.

Despite handicaps, the medical center has accomplished much, and the following tables and comments are intended as a statistical and factual report. Table I indicates the number of graduates of the medical school since its beginning in 1907 and their present distribution in Kansas, and it should be noted that 480 graduates or 25 per cent of *all* graduates are *now* practicing in Kansas. This number does not include those graduates who practiced in Kansas and are now deceased. This figure is not available but should bring the total to well above 500. The 480 graduates now practicing in Kansas constitute over 30 per cent of the membership of the Kansas Medical Society.

TABLE I

NUMBER OF GRADUATES FROM THE UNIVERSITY OF KANSAS MEDICAL SCHOOL SINCE 1907 AND THEIR DISTRIBUTION IN KANSAS AND MISSOURI

1. Total number of graduates from the Medical School	1,910
2. Number of graduates now in Kansas	480
3. Per cent of graduates now in Kansas	25
4. Number of graduates now in Missouri	245
a. In Kansas City, Missouri	176
b. Out state	69
5. Per cent of graduates now in Missouri	13

Table II concerns the student enrollment in the medical school. While the training of medical students is the chief function of the medical school, it will be seen the scope is much broader. In addition, doctors are trained in the various specialties and technicians are trained in the numerous allied sciences. There is a grand total of 516 students, not a small student body, which completely swamps the present facilities. Table III lists the assignments of the resident group. Practically all of these men are in training to qualify for the various national board examinations in their chosen specialties.

TABLE II

ENROLLMENT

Medical Students:	*Men*	*Women*	*Total*
Freshmen	82	4	86
Sophomores	76	9	85
Juniors	75	8	83
Seniors	51	5	56
Total			310
Nursing School			87
Residents			44
Interns			13
Other Enrollment:			
Occupational Therapists			9
Physical Therapists			15
Medical Technicians			15
X-ray Technicians			4
Dietitians			4
Applied Basic Science Students			9
Post Graduate Specials			3
Graduate Students			3
Note: If a resident is taking graduate work, he is counted only once.			
Total Enrollment			516

The geographical source of the medical students and the number of applicants for admission in each class is shown in Table IV. The senior and junior classes have a relatively high percentage of out of state residents. This is due to the assignment of these students to the medical school by the Army and Navy during the war years. Naturally, these students remained after the war years to complete their studies. The sophomore and freshman classes are back on a pre-war basis following the withdrawal of the Army and Navy programs.

Table IV also shows that the number of appli-

TABLE III

SERVICE ASSIGNMENTS OF THE RESIDENTS

Anesthesia	3	Ophthalmology	3
Dermatology	1	Pathology	6
Neurosurgery	1	Pediatrics	5
Medicine	8	Plastic Surgery	1
Ear, Nose and Throat	2	Roentgenology	2
Obstetrics and Gynecology	5	Surgery	4
Orthopedic Surgery	2	Urology	1
Total number of residents			44

"The most satisfactory results . . ."

IRRITABLE BOWEL SYNDROME

"Therapeutic efforts toward the relief of constipation in patients with an irritable bowel syndrome must be continued over prolonged periods of time. Cathartics which exert their action by direct irrigation of the intestinal mucosa have no place in long-term bowel management. . . . The most satisfactory results were obtained with a hydrophilic mucilloid [Metamucil] prepared from psyllium seed. . . ."*

METAMUCIL

When prolonged treatment is indicated, Metamucil—the "smoothage" management of constipation—fits well into the program.

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Smooth, gentle, normal evacuation—the desired action in the irritable bowel syndrome—is afforded by the use of Metamucil.

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*Dolkart, R. E.; Dentler, M., and Barrow, L. L.: The Effect of Various Types of Therapy in the Management of the Irritable Bowel Syndrome, Illinois M. J. *90*:287 (Nov.) 1946.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

TABLE IV

RESIDENCES OF MEDICAL STUDENTS, 1947-1948

SENIORS:	
Total applications received	236
Students in medical school:	
Kansas	41
Iran	1
Massachusetts	1
Illinois	1
South Carolina	1
Kansas City, Missouri	5
California	1
Ohio	1
Pennsylvania	1
Oklahoma	1
Utah	1
Missouri	1
Total Kansas students	41
Total out of state students	15
SOPHOMORES:	
Total applications received	263
Students in medical school:	
Kansas	77
Iran	1
Kansas City, Missouri	6
Maryland	1
Total Kansas students	77
Total out of state students	8
JUNIORS:	
Total applications received	176
Students in medical school:	
Kansas	62
Colorado	1
Michigan	2
Kansas City, Missouri	5
Ohio	1
Pennsylvania	2
Washington	1
California	3
New York	4
Arkansas	1
Maine	1
Total Kansas students	62
Total out of state students	21
FRESHMEN:	
Total applications received	213
Students in medical school:	
Kansas	78
Kansas City, Missouri	6
Puerto Rico	1
Illinois	1
Total Kansas students	78
Total out of state students	8

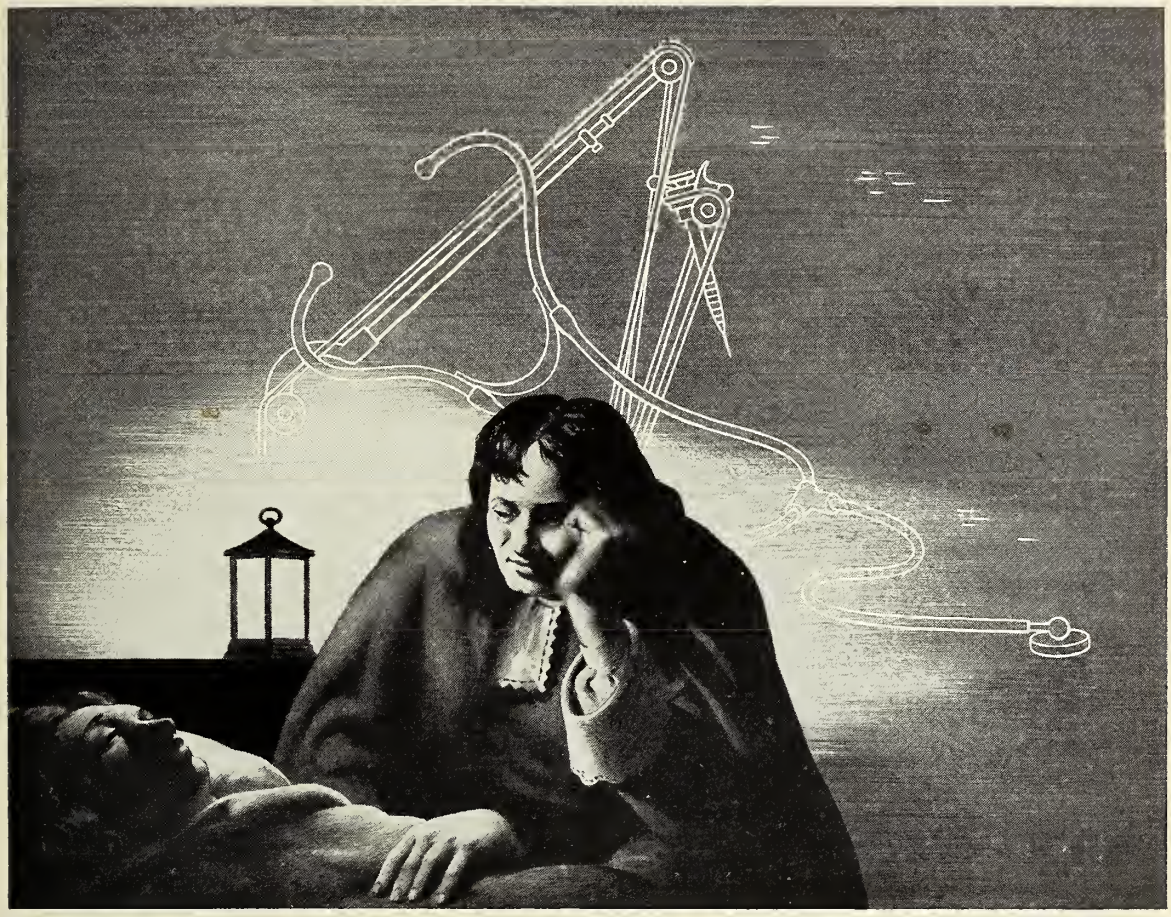
cants for admission in comparison to those selected is in the ratio of about three to one. It should be stated that no blanks for admission are sent out to residents of any state other than Kansas, with the exception of residents of Kansas City, Missouri. An indication of the number of applications which might be received can be seen in the fact that the registrar in the Kansas City division receives approximately 100 requests per month, and to those persons a statement of reason for refusal is sent. Certainly the secretary at the Lawrence division also receives requests. It may also be stated that no Kansas student has been denied admission who was able to meet the high scholastic and other requirements for entrance.

In order to meet the demands in medical education and allow every young man in the state of Kansas who wishes to enter medicine and who has adequate scholastic standing to do so, the faculty of the medical school has decided to divide the year into four quarters. This would place three-fourths of the total number of students in the junior and senior years in school at a given time and would allow the other one-fourth to be working as externs in various approved hospitals. This plan has the distinct advantages of offering valued experience to medical students and relieving the shortage of interns existing today. In addition, it would help materially in handling the overload of students which would otherwise result.

The accomplishments of the hospital section of the medical center for the year 1947 are depicted in Table V. The hospital is a 373-bed institution which admitted a total of 9,384 patients for a total of 125,480 patient days or an average daily census of 343 patients. There were over 50,000 visits to the out-patient department.

Private patients are those patients occupying private rooms and paying hospital and professional fees. Semi-private patients are those patients occupying ward beds and paying hospital and professional fees. Clinical patients are those patients occupying ward beds and paying reduced hospital fees but no professional fees. County patients are those sent in by county authorities for whom a reduced hospital fee is paid by the county, but no professional fee is paid. Free patients are those whose hospital fees are paid from the medical school free teaching fund. There is no professional fee, and patients are selected chiefly because of their value as teaching cases. The newborns are also considered as free cases. Obstetrical patients are charged a flat rate for hospital care. This includes care of the infant, for whom no professional fee is charged.

Thus, a little over 50 per cent of all admissions pay no professional fee. However, all patients, regardless of classification or whether or not they pay a professional fee, are, with the exception of the obstetrical department and rare individual cases, used for teaching purposes and are observed through their hospital stay by medical students. As a matter of fact, the medical school would be even more woefully lacking in teaching material if private and semi-private patients were not available for this



The First Modern Practitioner

Medicine and Dentistry were rescued from stagnant *generalizations* about disease by the English Puritan, Thomas Sydenham (1624-1689)—just as his ex-pirate assistant, Tom Dover, rescued Robinson Crusoe (Alexander Selkirk).

Sydenham first *observed and described specific and distinct diseases:* scarlet fever, measles, gout, malaria, dysentery, etc. With cool drinks for the smallpox victim, iron for anemia or sedatives for needed rest, he ended a war on *symptoms* and allied the profession with nature—to help the body *heal itself!*

So there were more good doctors in the next century. But the British Common Bench ruled in 1767 that neither their eminence nor good motives were sufficient defense against charges of malpractice or negligence; that a patient yielded no rights in submitting to treatment; that definitions of "skill" and "due care" varied with circumstance.

Doctors Since 1899 have not had to rely solely upon the inadequate defenses of eminence or good motives. They have safeguarded their time, money and reputations with The Medical Protective policy—for *complete* protection, *preventive* counsel and *confidential* service.

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TABLE V

January 1, 1947, to December 31, 1947, inclusive

Admitted to Hospital:	*Patients*	*Patient Days* Male	Female	Total
Surgery	935	5,615	5,985	11,600
Plastic Surgery	258	2,850	1,391	4,241
Neurosurgery	279	2,501	1,307	3,808
X-ray	112	755	2,140	2,895
Medicine	1,398	9,346	11,771	21,117
Neurology	74	709	1,083	1,792
Psychiatry	194	2,847	4,457	7,304
Pediatrics	827	3,933	4,933	8,866
Ophthalmology	410	3,478	2,128	5,606
Ear, Nose & Throat	890	1,556	1,149	2,705
Orthopaedics	500	4,053	4,189	8,242
Urology	438	5,440	762	6,202
Dermatology	122	1,211	483	1,694
Tuberculosis	61	3,710	6,393	10,103
Administrative	107	122	653	775
Dental	43	142	39	181
Newborn	986	5,077	5,439	10,516
Gynecology	590	.....	7,307	7,307
Obstetrics	1,160	.....	10,517	10,517
Total	9,384	53,345	72,126	125,471

Births	986
Deaths	356
Autopsies	244
X-ray plates	41,235
Patients in x-ray	36,229
Radiographic patients	20,018
X-ray treatments, deep	9,078
X-ray treatments, superficial	1,336
X-ray observations	4,200
Radium treatments	169
Fluoroscopies	5,059
Electrocardiograms	2,110
Patients in physical therapy	2,165
Treatments in physical therapy	21,731
Operations, major	1,755
Operations, minor	2,901
Tissue pathology	5,196
Laboratory examinations	265,223
Dispensary patients, old visits	43,054
Dispensary patients, new visits	9,961

CLASSIFICATION OF PATIENTS

Private	516
Semiprivate	4,362
Clinical	2,303
County	794
Free	173
Newborn	986
Crippled Children	216
Student Health	22
State	12
Total	9,384
Colored patients	1,818
White patient days	105,053
Colored patient days	20,427
Children	1,699
Adults	7,685
Total	9,384

purpose. Objections on the part of patients are exceedingly rare and occur so infrequently as to be negligible.

The source of clinical material is of interest. A total of 794 county patients was received from 84 of the 105 counties in the state. This number is probably a small percentage of the total number of county cases in the state. Many counties care for their own, and in others the question of distance or the prompt hospitalization of the patient makes local hospitalization more feasible. A greater number of county patients, particularly diagnostic problems and those requiring special treatment not available locally, is desired by the medical center. Patients requiring institutional care are, to a large extent, not desirable. These patients tie up beds that might be occupied by patients for whom something can be done and who are teaching material. An institution for these unfortunates is much needed.

Table VI lists the 10 counties which constitute the source of the bulk of the county patients. Listed, also, are the free and clinical patients from these

TABLE VI

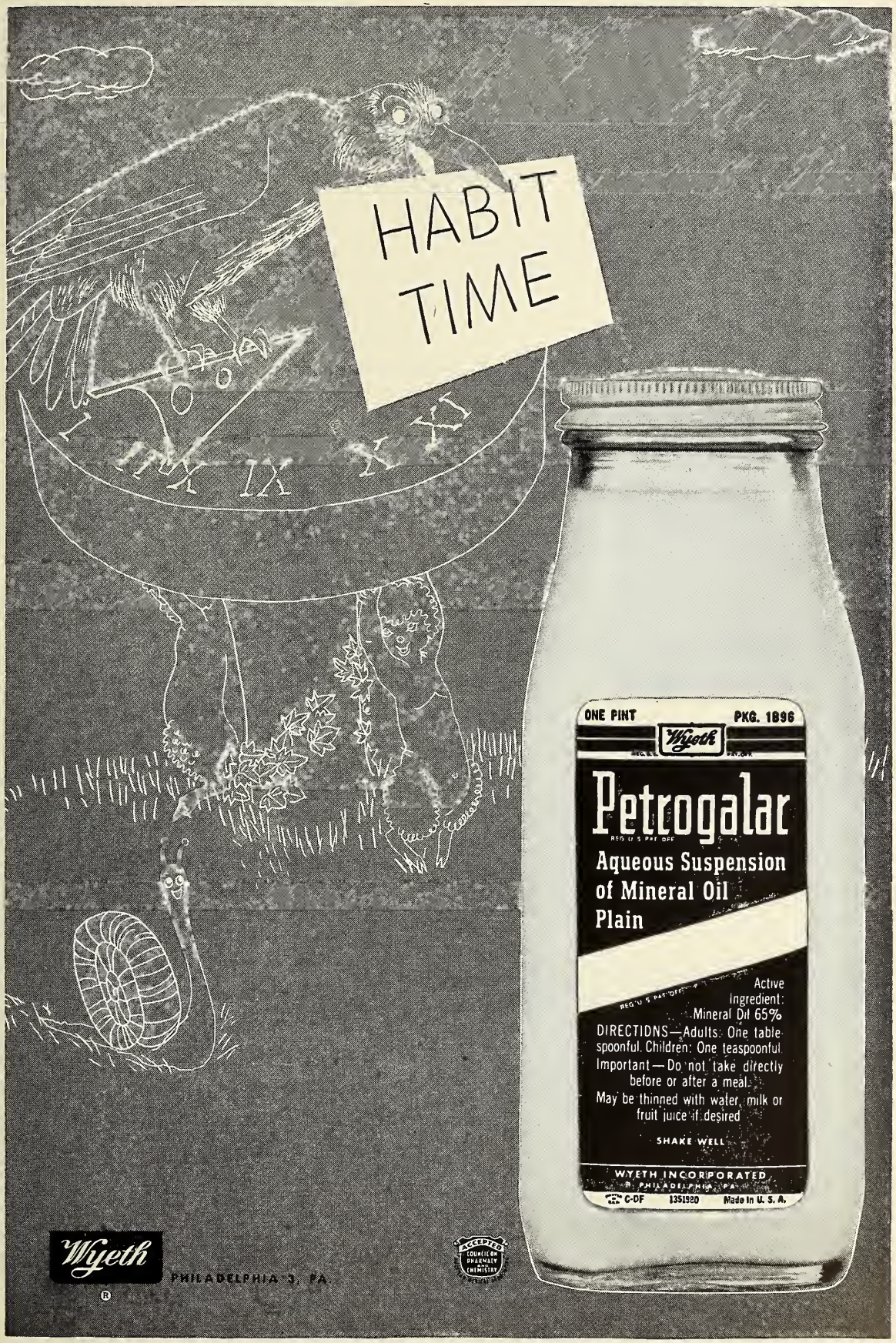
SOURCE OF PATIENTS

	County	*Free*	*Clinical*
Wyandotte	88	114	949
Johnson	59	4	65
Montgomery	38	0	11
Linn	32	0	11
Miami	23	0	24
Marshall	21	0	7
Osage	20	3	13
Leavenworth	18	1	28
Kansas City, Mo.	3	37	598
Out state Mo.	10	0	179

counties, and this is compared to the same type of patients admitted from Kansas City, Missouri, and out-state Missouri. Wyandotte county, due to its location in close proximity to the medical center and the fact that it has the largest population of any county in the state, is naturally the chief beneficiary of the free and clinical services. Kansas City, Missouri, due to location and large population, is a valuable source of clinical material but not as rich a source as the Kansas counties adjacent to the school.

The medical center has many activities other than those already mentioned, such as research (both medical and allied sciences), refresher courses, advisory groups, surveys and so forth. These many activities, plus the maintenance of the physical plant, require a large personnel. The faculty and school of medicine employees total 233. This figure embraces both the Lawrence and Kansas City divisions. There are 673 hospital employees, all in Kansas City, a grand total of 906 for the hospital and medical school.

Table VII lists pertinent information relative to the faculty of the entire medical school. Of interest is the fact that 43 per cent of the faculty members are Kansas university graduates. Only 20 are full time employees and the bulk of these are in the Lawrence division and teach the non-clinical sci-


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Active Ingredient: Mineral Oil 65%
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ences. Besides these full time instructors, there are 33 half-time instructors. These latter are, for the most part, heads of departments or sections, directors of clinics and so forth. The 53 are paid a salary commensurate with the salary scale of the faculty of the University of Kansas. The remaining 147 faculty members are on a yearly stipend ranging from nothing to $300 yearly (less withholding tax). Table VIII shows the number of those on "token" salaries of $300 or less, in the various levels of rank. A few senior faculty members of professional rank either refuse the "token" stipend or turn over the check to their particular departments. Attention is directed to the fact that the bulk of these "token" payments goes to junior faculty members, that is young physicians just starting or in the early years of practice. Many of these men spend long hours in teaching or caring for non-pay patients. Twenty or more years ago there was some basis for this method of procedure, as the young man needed this experience and considered it part of his training. Today, some physicians are starting practice after three to seven years as residents with a diploma from their national board. They are ready for private practice and, after the long years of costly professional training, are very much needing the same to provide the necessities of life. The University of Kansas Medical School cannot compete with private clinics for these men in the realm of financial inducements, and neither can the school offer hospital facilities so that a livelihood may be made from a private practice. A hospital of 373 beds, over half occupied by non-pay patients, cannot possibly offer beds to a staff of over 150 practicing physicians.

TABLE VII

Number of Doctors on the Faculty	
a. Full time	20
b. Part time	180
Of the 200 on the faculty:	
a. 87 have M.D.'s from Kansas University	
b. 113 have M.D.'s or Ph.D.'s from other schools	
c. 93 live in Kansas (Kansas City, Ks., and nearby)	
d. 78 live in Kansas City, Missouri	
e. 29 live elsewhere in Kansas	
f. 33 are full professors	
g. 16 are associate professors	
h. 27 are assistant professors	
i. 36 are associates	
j. 43 are instructors	
k. 29 are assistants	
l. 16 are lecturers	

TABLE VIII

1. Professors		33
	Paid $300	7
	Paid $100	2
	No salary	4
	Total	13
2. Associate Professors		16
	Paid $300	9
	Paid $100	2
	No salary	0
	Total	11
3. Assistant Professors		27
	Paid $300	8
	Paid $100	9
	No salary	0
	Total	17
4. Associates		36
	Paid $300	10
	Paid $100	20
	No salary	1
	Total	31
5. Instructors		43
	Paid $300	9
	Paid $100	22
	No salary	8
	Total	39
6. Assistants		29
	Paid $300	1
	Paid $100	10
	No salary	9
	Total	20
7. Lecturers		16
	Paid $300	1
	Paid $100	0
	No salary	15
	Total	16
8. Grand totals		
	Paid $300	45
	Paid $100	65
	No salary	37
	Total	147

As it now stands, 10 per cent of the faculty of the medical school are teaching as a vocation. Ninety per cent are teaching or practicing in the medical center as an avocation. The old adage that one cannot serve two masters is considered to have merit. Would it not be more efficient if the bulk of the faculty members spent their full time working within the confines of the medical center and received their entire remuneration from the state? More and more medical schools are coming to this conclusion.

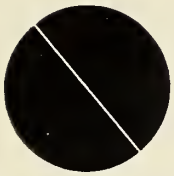
The Univerity of Kansas Medical Center has many problems to be solved. A few of the more pertinent of these problems have been indicated in the preceding paragraphs. These problems are the concern not only of the staff of the medical center but also of the state as a whole and Kansas physicians in particular.

Obstetrical and Gynecological Examinations

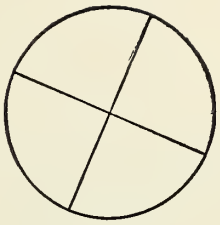
General oral and pathology examinations (Part II) for candidates for the American Board of Obstetrics and Gynecology, Inc., will be conducted in Washington, D.C., May 16-22, inclusive. Notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates. Candidates applying for re-examination in Part II must make written application to the secretary's office not later than April 1, 1948.

The Board is now receiving applications for the 1949 examinations, and will continue to do so until November 1, 1948.

The secretary of the board is Dr. Paul Titus, 1015 Highland building, Pittsburgh 6, Pennsylvania.



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BENZEDRINE SULFATE, by safely depressing the overweight patient's appetite, ordinarily curbs excessive eating. Lowered caloric intake and loss of weight naturally follow. Hence, Benzedrine Sulfate therapy is medically sound and highly effective.

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[1]Harris, S. C.; Ivy, A. C., and Searle, L. M.: THE MECHANISM OF AMPHETAMINE-INDUCED LOSS OF WEIGHT: A Consideration of the Theory of Hunger and Appetite, J.A.M.A. 134:1468 (Aug. 23) 1947.

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COUNTY SOCIETIES

The Cherokee County Medical Society met January 20 at the office of Dr. Grant Powell, Galena. Dr. Leon Bauman, head of the Labette county health department, was guest speaker.

* * *

The regular meeting of the Wilson county society was held January 14 at Fredonia. The group had dinner with members of the Auxiliary, and then held a business session at the office of Dr. E. C. Duncan. The following officers were elected: president, Dr. Raymond J. Beal; vice president, Dr. A. Mary Hayden; secretary, Dr. E. C. Duncan.

* * *

Dr. S. D. E. Woods, Osawatomie, was named president of the Miami county society at a meeting held at Paola January 16. Dr. William Brown, Paola, was elected vice president and Dr. Joseph Fowler, Osawatomie, was chosen secretary.

* * *

Members of the Marion county society met February 4 at Marion. Dr. G. J. Goodsheller showed Kodachromes of his recent trip to the east coast, and Dr. Charles Magee showed pictures taken in India while in military service.

* * *

The Sedgwick County Medical Society entertained the Wichita Dental Society, the Sedgwick County Medical Assistants' Society and the Wichita Dental Assistants' Society at a meeting at the Broadview hotel February 17, Mr. Mac F. Cahal of Chicago, executive secretary of the American College of Radiology, was guest speaker. Mr. Cahal was the first executive secretary of the Sedgwick County Medical Society.

* * *

Members of the Crawford County Auxiliary were guests of the county medical society at a dinner meeting held February 26. Also present from Topeka were Dr. J. L. Lattimore and Mr. Oliver Ebel, and Dr. Lattimore presented a scientific paper, "Nonspecific Serological Reagins."

* * *

The Riley County Society held a dinner meeting February 24 at Manhattan. Dr. Morris Fishbein, editor of the Journal of the A.M.A., who was in Manhattan to give a lecture at Kansas State College, was a special guest.

Directory Information Requested

More than 115,000 physicians in the United States have returned to the American Medical Association the directory information cards mailed out last November, but many others have failed to do so. The A.M.A. requests the cooperation of all so that accurate, up-to-date data can be assembled. A second request for information and a duplicate card will be mailed soon to those who have not yet replied.

Each physician is urged to use only the card addressed to him, as it bears the serial number assigned to him. Cards addressed to other physicians who have moved away should be returned to the A.M.A. with the doctor's new address.

To avoid confusion in recording data, the A.M.A. explains several items that have not been clear. Physicians are urged to check only one specialty on the back of the card and to indicate whether their practice is limited to that specialty or whether special attention is given to that specialty along with the practice of general medicine. The lines marked "Intern" and "Resident" are to be filled in only if the physician is now serving an internship or residency.

After checking information cards returned to its office, the A.M.A. reports that many are not aware of the difference between "Membership" and "Fellowship" in the American Medical Association. Here are the official definitions:

Every member in good standing in the constituent medical association of the state in which he is engaged in practice whose name is officially reported to the secretary of the A.M.A. for enrollment becomes automatically a member of the A.M.A. As such, he is not called upon to pay any dues or to contribute financially to the association, but he is eligible to apply for fellowship.

To qualify as a fellow, a member in good standing is required to make formal application for fellowship, to pay fellowship dues and to subscribe to the Journal of the A.M.A. Applications must be approved by the Judicial Council. Fellowship dues and subscription to the Journal are both included in one annual payment of $12, which is the cost of the Journal to subscribers who are not fellows.

Each fellow receives a fellowship card as payment of his dues is recorded, which card is presented for admission to annual meetings of the association. Physicians eligible for fellowship should make formal application now so that they may attend the annual meeting in Chicago in June.

First International Poliomyelitis Conference

Ten world medical and research authorities on poliomyelitis were recently named presiding officers for plenary sessions of the First International Poliomyelitis Conference to be held in New York City July 12-17. Each of the presiding officers will be assisted by a panel composed of international authorities who have done special work on particular phases of the problem. Papers will be presented at each session and will be followed by open discussions.

Presiding officers are: Oswaldo P. Campos, M.D., clinical orthopedic surgeon, Hospital Jesue, Rio de Janeiro, Brazil; Rustin McIntosh, M.D., professor of pediatrics, Columbia university, New York City; Arthur Steindler, M.D., professor of orthopedic surgery, University of Iowa, Iowa City; Arvid Wallgren, M.D., professor of pediatrics, Royal Caroline Medical Institute, Stockholm, Sweden; Carlos S. Ottolenghi, M.D., Docente Libre de Orthopedia, Buenos Aires, Argentina; James E. Paullin, M.D., professor of clinical medicine, Emory University, Atlanta, Georgia; Pierre L. LePine, M.D., director of laboratories, Pasteur Institute, Paris, France; Harry S. Mustard, M.D., Commissioner of Health, New York City; Thomas Parran, M.D., Surgeon General, U. S. Public Health Service; Irvin Abell, M.D., clinical professor emeritus of surgery, University of Louisville, Louisville, Kentucky.

Summaries of polio problems in other countries will be presented by official delegates who have been invited to represent their governments. Invitations have been extended to more than 60 nations through the state department.

Delegates will be divided into three categories, official government delegates; institutional delegates representing invited universities, societies and scientific and philanthropic organizations interested in research and treatment of virus diseases; and member delegates. The last group will include physicians and other scientific and professional persons qualified by recognized standards.



another of its several advantages:

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Indications:

Infected surface wounds, or for the prevention of such infection
Infections of second and third degree burns
Carbuncles and abscesses after surgical intervention
Infected varicose ulcers
Infected superficial ulcers of diabetics
Impetigo of infants and adults
Treatment of skin-graft sites
Osteomyelitis associated with compound fracture
Secondary infections following dermatophytoses

LABORATORIES Inc.
NORWICH, NEW YORK

*Snyder, M. L., Kiehn, C. L. & Christopherson, J. W., Mil. Surg. 97:380, 1945.

LITERATURE ON REQUEST

MEMBERS

Dr. W. G. Cauble, formerly of Winfield, announces the opening of an office in Wichita for the practice of general surgery.

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Dr. Fred G. Dietrich, Lakin, has been named Kearny county health officer.

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Dr. Ernest Carreau, Wichita, who has been spending afternoons at an office in Mulvane, announces the closing of the Mulvane office.

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Dr. G. R. Dean, who began practice in McPherson county in 1895, announces his retirement from active practice although he will continue as county health officer and as a member of the Kansas State Board of Medical Registration and Examination. His practice in McPherson will be taken over by Dr. Weir Pierson, who has been with him for the past year.

* * *

Dr. J. R. Henning has completed a course in EENT work at the University of Kansas Medical Center and is now associated with his brothers, Dr. C. W. Henning and Dr. E. E. Henning, in practice in Ottawa.

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Dr. and Mrs. F. R. Croson, Clay Center, will leave soon on a vacation trip to South America. In May they will attend the Rotary International meeting in Rio de Janeiro.

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Dr. L. D. Mills, Mound City, has been appointed Linn county health officer.

* * *

Dr. Ralph I. Canuteson, director of health service at the University of Kansas, is the author of a paper, "Health Service in the College Program," printed in the November, 1947, issue of Journal-Lancet. The paper was a copy of an address Dr. Canuteson gave last May upon completion of his third year as president of the American Student Health association.

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Dr. I. J. Waxse has discontinued management of the Oswego hospital and has established an office there.

* * *

Dr. P. S. Combs, Leavenworth, was recently appointed county health officer.

Army Tests New Drug

The United States Army Medical Department soon will stage the most extensive test yet made of the efficacy of chloromycetin, the only drug thus far discovered which is as effective against certain rickettsial disease-causing organisms as the sulfa drugs and penicillin are effective against bacteria. The test will be made in an effort to stop the spread of scrub typhus in the Far Eeast.

Dr. J. E. Smadel, director of virus research at the Army Medical Center, and one of the discoverers of this substance, plans to fly to the Malay states early this spring with a supply of the drug for the treatment of native plantation workers among whom scrub typhus is making serious inroads.

The carrier of the infection is a mite which is probably spread by rodents. During the war many of the plantations in Malaya were allowed to go back to brush, and this resulted in a big population of infested rodents. Workers sent in to clear the plantations have suffered a heavy mortality rate.

Scrub typhus was a major army problem in the Pacific during the war, and the story of its ravages is dramatic. Efforts to produce a vaccine against it cost the lives of three American and several British workers, and nothing was accomplished until the war was nearly over. An apparently effective vaccine finally was prepared from the macerated lungs and spleens of infected rodents, but when this was given actual field tests it was found to be ineffective.

The outlook for the new drug is promising, but no predictions are made. Experience has shown that laboratory results do not always work out in the field, so Dr. Smadel will conduct his tests where results can be definitely established.

Preventive Medicine Interim Board

Announcement has been made of the formation of an "Interim Board" of Preventive Medicine, the first step toward professional recognition of consultants and practitioners of preventive medicine as medical specialists. Announcement of the Interim Board was made jointly by the surgeons general of the Army, Navy and United States Public Health Service.

The board was formed chiefly for the purpose of setting up certification requirements for medical officers seeking to qualify as specialists. The cooperative efforts of these three services will give impetus to a plan for creation of an American Board of Preventive Medicine and Public Health to take its place among the 16 medical specialty boards already in existence. Six civilian authorities on the specialty were chosen to serve on the interim board, and Dr. Ernest L. Stebbins, director of the Johns Hopkins School of Hygiene and Public Health, will serve as chairman.

DEATH NOTICES

SCHUYLER NICHOLS, M.D.

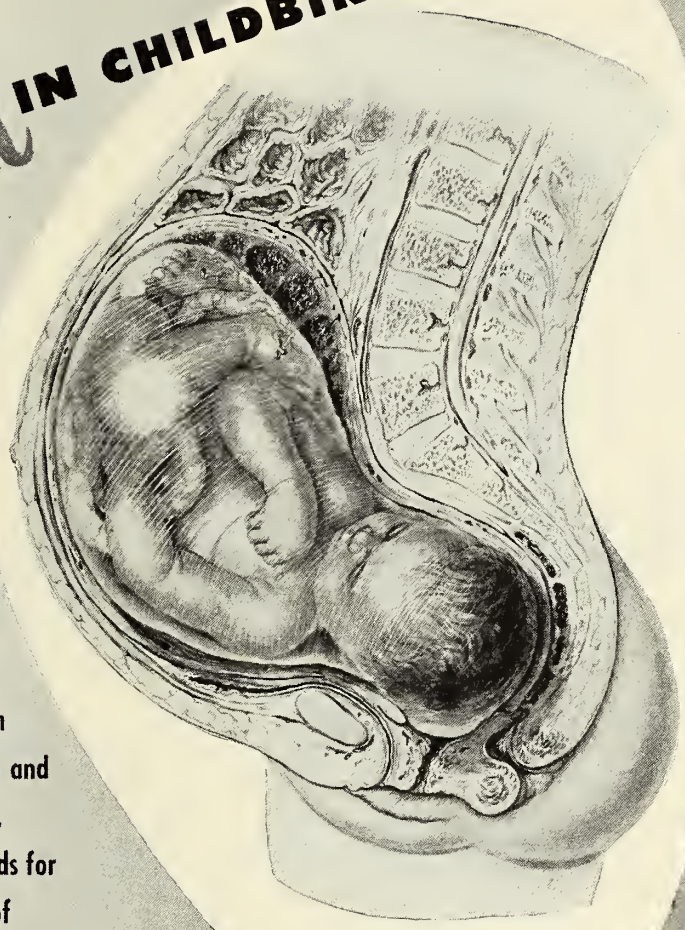
Dr. Schuyler Nichols, 72, who had been practicing in Herington for many years, died January 25 as the result of injuries received in an automobile accident. Mrs. Nichols, who was riding with him at the time of the accident, was also killed. Dr. Nichols was graduated from Barnes Medical College, St. Louis, in 1901, and received his license to practice in Kansas the same year. He was an active member of the Dickinson County Medical Society.

* * *

SAMUEL THOMAS MILLARD, M.D.

Dr. Samuel T. Millard, 71, Topeka physician for many years, died February 6 after several months illness. After his graduation from Kansas Medical College in 1906, he practiced in Carbondale for a short time before opening his office in Topeka, specializing in dermatology. During World War I he served in the Army medical corps and was overseas for two years. He was instrumental in the founding of the city-county clinic in Topeka 20 years ago and was active in work there until his recent illness. In addition to his medical interests, he had many hobbies, collecting woods and glassware, building ship models, painting, collecting first and early edition books, and writing books on antique glassware.

Pain RELIEF IN CHILDBIRTH



One of the Simplest, Safest and Most Satisfactory Methods

Careful consideration of all the methods advocated for the relief of pain during childbirth leads to the conclusion that local infiltration anesthesia combined with Demerol and scopolamine is one of the simplest, safest and most satisfactory methods for the average woman in the hands of the average practitioner.

For detailed discussion, see Alfred C. Beck: Obstetrical Practice. Baltimore, Williams and Wilkins Co., 4th ed., 1947, page 403.

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THE KANSAS PRESS LOOKS AT MEDICINE

WHERE DOCTORS STAND IN MODERN DAY SCENE

The charge frequently made by proponents of socialized medicine, that the medical profession is totally opposed to efforts to improve the public health and solve the problem of the cost of medical care, is ridiculous.

The truth is that the medical profession, as a whole, has given complete cooperation to the various prepayment medical plans which bring medical care within the reach of workers and their families at an average cost of three dollars or so a month. The largest and oldest of these plans now has something like 30,000,000 members. Dozens of others have been started, have outlived the usual growing pains that attend anything new, and are on a stable basis. The scope of the service rendered has steadily been expanded.

Furthermore, the medical profession has urged federal grants to the state for such purposes as tuberculosis and venereal disease control, maternity care, general medical service for people who are actually indigent and can't afford to pay anything for medical service. The responsibility for activating a program such as this belongs to congress.

What the medical profession has opposed is socialization or regimentation which would make the doctor a tool of the politicians. And all the evidence indicates that the American people are also overwhelmingly opposed to that.—*El Dorado Times.*

* * *

ONE MORE TRY

It is interesting to note that the question of what osteopaths should be permitted to do in Kansas by way of practicing medicine and surgery finally seems to be headed toward the supreme court of the United States for a decision.

A hearing for the purpose of building up a proper record of testimony with regard to the claims and facts will be held before a federal court in Topeka. An appeal then will take the matter to the supreme court.

And a couple of million Kansans—not to mention 165 members of the state legislature—will heave a great sigh of relief if the supreme court decision actually points a way to the end of this controversy!

It has been bedeviling the legislature ever since I can remember. Every session an "osteopath bill" comes up. Every time it is considered, fur flies in every direction. Every time it is turned down, recriminations echo throughout the state until it comes up again.

According to the Associated Press, arguments in the case have summed themselves up approximately as follows:

The osteopaths argue that although their profession relies chiefly on manipulation, it also recognizes the necessity of medicines and surgery in certain cases and should not be deprived of this means of bringing about a cure.

The state law, they argue, is oppressive and unreasonable in that it prohibits them from using drugs and surgery, thus mounting in effect to a violation of their right to earn a livelihood under their training and education. The law gives them that right, then immediately takes it away by adding the ban on use of medicines or surgery.

Those arguing the other side of the case declare that if osteopaths were permitted to use drugs and surgery, they would have a complete range of medical practice without meeting the qualifications of the state's medical practice act.

They maintain that the law is not oppressive since it does not discriminate against osteopaths as a group but only sets up standards in regulation of the healing professions to which all must adhere.

So there you are.

If the Supreme Court can pull an answer to this one out of their hats, they will be doing the state of Kansas a considerable favor.—*Iola Register, February 13, 1948.*

* * *

PUBLICITY FOR DISEASED HEARTS

With a blare of trumpets, the state of Kansas announces the appropriation of $10,000 from its emergency fund for medical school equipment which will make possible better diagnosis, study, and treatment of heart disease.

Heart disease, as the term is loosely used, is mankind's greatest killer.

It produces one hundred times as many hopeless invalids, acute sufferers, and deaths each year as does infantile paralysis. Yet $10,000 is less than the sum the city of Hutchinson alone contributes voluntarily each year for the alleviation of infantile paralysis.

Even $10,000 is a start and a good one, but what heart disease most suffers from is the lack of a good tear-jerking press agent.—*Hutchinson News-Herald, November 19, 1947.*

Postgraduate Clinic on Cancer

A postgraduate clinic on cancer will be presented in five cities in Kansas from March 19 to March 24 under the auspices of the Kansas Medical Society, the Kansas State Board of Health and the University of Kansas School of Medicine, with financial assistance from the Kansas Division of the American Cancer Society.

The following schedule has been announced: Wichita, March 19; Hays, March 21; Topeka, March 22; Emporia, March 23; Pittsburg, March 24. The program will be identical at each center with afternoon and evening sessions. A fee of $5.00 will include a dinner ticket as well as the program.

Speakers for the course are Dr. Brian Blades, professor of surgery, George Washington university; Dr. Ira T. Nathanson, assistant professor of surgery, Harvard university; Dr. Grantley W. Taylor, associate in surgery, Harvard university.

Statistics on Life Insurance Examinations

Physicians who give life insurance examinations will be interested in information recently released by the Institute of Life Insurance, reporting that 95 out of 100 applicants obtain policies. A recent analysis of one year's applications shows that 85 per cent obtain standard rate policies and 10 per cent qualify only for extra rate policies.

Heart disease and high blood pressure constituted the chief cause of uninsurability, accounting for one-half of all rejections, and overweight was another important factor. Fewer than one-half of one per cent of all persons applying for insurance failed to obtain it because of underwriting qualifications other than physical, occupation, location of residence, excessive drinking and other personal habits.

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National Health Assembly in May

Oscar R. Ewing, federal security administrator, recently announced the formation of a National Health Assembly, to be held in Washington, D. C., May 1-4, 1948. The assembly is being set up as a result of the message of President Truman to Mr. Ewing requesting the development of feasible national health goals for the next 10 years. Preliminary estimates are that more than 700 people will attend the sessions.

Twenty-four representatives of public and private organizations and agencies, mostly lay persons, have been invited to serve on the executive committee of the assembly. Dr. George F. Lull, secretary and general manager of the A.M.A., is one of the group, as is also Dr. Louis I. Dublin, vice president and statistician of the Metropolitan life insurance company.

Mr. Ewing defines the work of the assembly as follows:

"To see what we have—to know accurately the health facilities and personnel of the nation and of each community.

"To determine what we need. The difference between the two will show us our health deficits.

"To devise feasible methods of meeting these deficits."

In announcing the assembly Mr. Ewing made the following statement: "I consider the request of the President one of the most important assignments ever given in peace time to a federal agency, and the projected National Health Assembly can be of tremendous value in helping the Federal Security Agency in carrying it out.

"Meeting together, spokesmen for the medical and health profession, for our great national voluntary health organizations, and for the citizens generally will have an opportunity to examine every facet of the problem."

New Surgeon General

Announcement has been made of the appointment of Dr. Leonard A. Scheele as surgeon general of the United States Public Health Service, to take office on April 6, when the term of the present surgeon general, Dr. Thomas Parran, expires. Dr. Scheele, who is 40 years old, is the youngest man ever to become surgeon general in the history of this country. During the war he was assigned to the Army, and since last July he has been director of the National Cancer Institute.

Lilly Chairman Dies

Josiah K. Lilly, 86, chairman of the board of directors of Eli Lilly and Company, died February 8. A son of the founder of the company, he first worked for the Lilly organization at the age of 14, delivering Lilly products to a nearby wholesale druggist in a wicker basket. After studying pharmacy he became superintendent of the plant, then president of the company and chairman of the board.

Public Health Service Grants

A million and a half dollars—the largest grant of Public Health Service funds ever to be given at one time—was awarded last month to a total of 64 colleges, research laboratories and public health institutions throughout the country by the National Advisory Cancer Council of the National Cancer Institute, Bethesda, Maryland. An award of $750,000 for clinical and basic biological research was also announced.

The list of grants included $25,000 to the University of Kansas Medical Center for coordination of cancer teaching and other cancer activities and $1,000 to Kansas State College for a study of biological tests of malignancy. The Midwest Research Institute, Kansas City, Missouri, was awarded $8,262 for syntheses of Diphenylethylamines for treatment of cancer.

Before awarding these grants, provision had been made for substantial sums for cancer control projects by each state department of health, a total of $2,500,000 for all the 48 states and the territories.

Record Number of Student Nurses

Enrollment of approximately 40,000 new student nurses in the nation's 1,227 schools of nursing during 1947, a peacetime record, was indicated at a meeting of the 1947 Student Nurse Recruitment Committee. The figure was estimated by representatives of the National Committee on Careers in Nursing, American Red Cross, Advertising Council, American Medical Association, American College of Surgeons and the American Hospital Association.

Determined after a study of projected enrollment figures tabulated from surveys conducted by the committee during the 1947 campaign, the 40,000 estimate indicates an increase of 1,900 over the previous peacetime high in 1940, and is 9,000 over the 1946 total. Goal for the 1948 campaign will be 50,000 new nursing students.

Society for Prevention of Blindness Meets

The National Society for the Prevention of Blindness will hold its 1948 conference at the Radisson hotel, Minneapolis, Minnesota, April 5-7. Subjects to be discussed include public health responsibility for eye health, vision in education, organizing the community for sight conservation, teamwork for industrial eye care, and a study of scientific advances in prevention of blindness. Advance registrations may be made with the society at 1790 Broadway, New York 19, New York.

Schering Award for 1948

The Schering corporation of Bloomfield, New Jersey, announces the subject for its 1948 manuscript contest, "The Role of Hormones in the Maintenance of Pregnancy." Prizes of $500, $300 and $200 will be awarded the three undergraduate students of American and Canadian medical schools whose manuscripts are judged best.

Medical Aspects of Atomic Explosion

More than 20 of the country's schools of medicine accepted invitations to send representatives to a five-day course on medical aspects of atomic explosion at the Army Medical Center, Washington, during January. The course is sponsored by the medical services of the armed forces and the Veterans Administration and by the Armed Forces Special Weapons Project.

Given once each month since last October, the course was opened in December to medical school representatives. Some attended in December, others in January, and a third group was present for the February course. A total of 430 doctors had attended at the end of January.

Because it is only five days in length, the course does not take up in detail the technical aspects of radioactivity, but is concerned only with the fundamentals of radiation hazards, diagnosis and treatment. Instructors are specialists in various phases of radiation and blast injury from the Army, Navy, Public Health Service, Veterans Administration, Atomic Energy Commission and Armed Forces Special Weapons Project.

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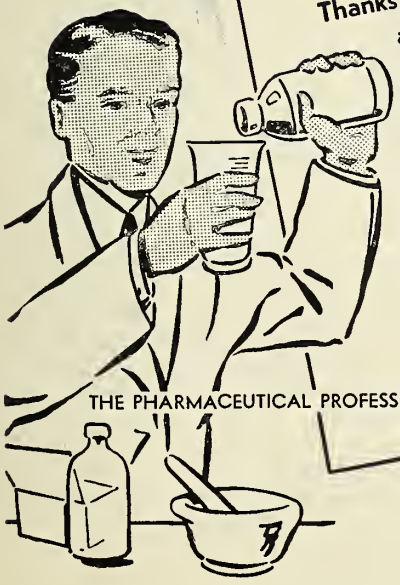
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Public Health Association to Meet

The annual meeting of the Kansas Public Health association will be held in Topeka, April 15, 16 and 17, with headquarters at the Jayhawk hotel and sessions in the assembly room of the municipal auditorium. The theme of the meeting is "Public Health Education and Community Organization."

A number of prominent speakers will appear on the three-day program. The laboratory and sanitation sections will hold separate meetings on April 15, and both groups will meet together for general sessions on April 16 and 17. Two banquets with outstanding guest speakers will highlight the program. Dr. Reginald M. Atwater, executive secretary of the American Public Health association, New York, will address the group at the banquet on Thursday evening at the Jayhawk, and Dr. L. E. Burney, commissioner of the Indiana State Board of Health, Indianapolis, will be principal speaker on Friday evening. Luncheon meetings will be held on Friday for health officers, public health nurses and sanitarians.

The Kansas Public Health association welcomes new members and extends an invitation to the annual meeting to all who wish to attend.

Expand A.M.A. Speakers' Project

The Board of Trustees of the A.M.A. has assigned a new duty to the Bureau of Health Education, the supervising of a program designed to provide speakers where they are needed throughout the United States.

All groups wanting speakers from A.M.A. headquarters, especially units of the Woman's Auxiliary, are to register their needs with the Bureau. These requests will be coordinated with the availability of traveling members of the headquarters staff whenever possible. If successful, the plan can be the nucleus for a nationwide speakers' bureau.

American Hospital Association Convention

The 15th anniversary convention of the American Hospital association will be held in Atlantic City, September 20-23, with headquarters at the Traymore hotel. Morning sessions will be joint meetings of the assembly and the House of Delegates, devoted to study of two problems, care of the patient and hospital finances. Afternoon sessions will be large general meetings. There will be educational and commercial exhibits throughout the meeting and a number of social events.

New Antiseptic Ointment

The National Drug company of Philadelphia announces the introduction of a new antiseptic ointment possessing a wide bacterial spectrum against certain anaerobes, gram-positive cocci and bacilli and gram-negative bacilli, including Proteus.

The ointment is introduced as Acr-Allantomide ointment. It is a combination of 9-aminoacridine hydrochloride 1:500, sulfanilamide 10 per cent and allantoin two per cent, in an aromatized, water miscible base. It is indicated in traumatic wounds, postoperative wounds, topical ulcers, second and third degree burns, frostbite, amputation stumps, and in all lesions potentially contaminated.

Report on Poliomyelitis

A study of the 1946 outbreak of infantile paralysis in Chicago was made by two physicians of the city, Dr. Archibald L. Hoyne and Dr. Peter J. Cotsirilos, who reported their findings in the Illinois Medical Journal. The report emphasized the importance of nutrition in the background of the disease, as the doctors noted it seemed to be a constant factor in susceptibility.

In a study made in 1916 it was mentioned that victims usually were exceptionally well nourished, and recent reports indicate that a deficiency of thiamine seems to increase resistance to the disease in experiments with mice. Some authorities believe that the virus, as a parasitic organism lacking the power to live independently, must have a well-nourished host on which to feed. Poorly nourished children, therefore, may exhibit a relatively great resistance to the disease.

The study included 225 cases admitted to the contagious disease department of Cook county hospital in 1946 with a fatality rate of four per cent.

Study of Sterility Continued

The American Society for the Study of Sterility will hold its fourth annual national session at the Congress hotel, Chicago, June 21 and 22. Dr. Edwin C. Robertson, chairman of the Department of Obstetrics and Gynecology of Queens college, Ontario, Canada, is chairman this year. The program may be secured from Dr. John O. Haman, 490 Post street, San Francisco 2, California.

Pediatrics for General Practitioners

The areal meeting of the American Academy of Pediatrics will be held at the hotel Schroeder, Milwaukee, Wisconsin, June 28-30, 1948. Attendance is not limited to pediatricians, and all members of state medical societies in the area are invited. Registration fee, including a ticket to the banquet, is $10. Advance registrations may be made by writing Dr. C. G. Grulee, Secretary, American Academy of Pediatrics, 636 Church street, Evanston, Illinois.

Statistics Available on Paralysis

The 1948 edition of "Facts and Figures about Infantile Paralysis" is now available to physicians and public health workers, and may be secured by writing the National Foundation for Infantile Paralysis, 120 Broadway, New York 5, New York.

Statistics on the disease, revised yearly, are gathered and translated into tables, charts and maps to show incidence, age and sex distribution, case rates, crippling conditions and mortality. This year the edition includes data on the disease in foreign countries.

Promotes Enrollment of Student Nurses

The American Nurses' Association, working in close cooperation with each state nurses' association, is exerting nationwide efforts to maintain a continuing supply of nurses by promoting enrollment in accredited schools.

The first step, as outlined by Miss Ella Best, executive secretary of A.N.A., is the dissemination of information concerning professional nursing service and nursing education to all persons and organizations in a position to recommend the profession as a vocation. To this end, folders containing five informative pamphlets have been forwarded to each state association with a request that they be relayed to officials in each state, commissioners of education, heads of guidance bureaus, high school principals, college deans and others.

The five pamphlets, all of which are available without charge, are as follows: Nursing is a Great Profession, Schools of Nursing, Educational Funds for Student and Graduate Nurses, Opportunities in Nursing, and Plan Your Own Career in Nursing.

Reaching more than 23 million people . . .

This Parke-Davis "See Your Doctor" message will appear in LIFE and other national magazines.

A reproduction in full color will be sent on request. Write Parke, Davis & Company, Detroit 32, Michigan.

Some things you should know about operations

No. 210 in a series of messages from Parke, Davis & Co. on the importance of prompt and proper medical care.



OF ALL THE RECENT ADVANCES in medical science none have been more dramatic than those in surgery and the fields related to it. Take appendicitis, for instance.

Not very many years ago, having your appendix out might have meant a fairly long and uncomfortable hospital sojourn, followed by several tedious weeks of getting back your strength. And with it all you might have had good reason to fear such complications as peritonitis or pneumonia.

Nowadays, except for a few rare cases, the removal of an appendix is not considered a serious operation. And many operations which were considered of major seriousness as recently as 1930 are now often relatively simple.

Because of notable advances in training and surgical skill, many of the risks have been almost eliminated. Complications following operations are far less common. And most patients recover in a shorter time, and with less discomfort than formerly.

Such progress in surgery has been hastened by significant developments in four important fields.

1. Anesthesia. The administration of anesthetics has become a specialized science. New anesthetics have been developed—less toxic, less upsetting to respiration and heart action. With modern anesthesia the patient has a far easier time when undergoing surgery. Post-operative nausea and vomiting, which were previously almost taken for granted, are now much less frequent.

2. Infection-fighting drugs. Peritonitis, once feared as a frequent complication of abdominal surgery, today is uncommon. The use of such agents as the sulfa drugs and penicillin—to treat infection or to guard against it—has almost eliminated many of the infections which formerly constituted the greatest dangers in surgical procedures.

3. Early ambulation. Doctors have found that getting patients out of bed soon after operations not only speeds recovery, but also prevents many of the discomforts formerly suffered. Bowel and urinary functions are quickly restored. Gas pains are usually avoided. It is not unusual nowadays for a patient to be well enough to go home from the hospital in less than ten days after a major operation.

4. Body Nutrition. One of the problems in surgery has been that the condition which makes an operation necessary is usually one which has depleted the patient's nutritional reserves, and therefore lessens his ability to recover promptly from the operation itself.

In recent years, however, medical science has broadened its knowledge of body nutrition.

Today, it is possible to determine in what a patient's body is deficient—whether he needs whole blood, vitamins, salts, carbohydrates, protein.

Each of these elements can be replaced—making it far easier for the patient to go through an operation. Post-operatively, also, recovery is hastened by supplying the body's needs in easily assimilated form.

SEE YOUR DOCTOR. Give him your complete confidence at all times. If he advises an operation, follow his recommendation promptly. With modern surgery, with modern hospital care, you have little reason to be afraid.

Remember, too, that when surgery is indicated, a delay may be dangerous. Prompt action is likely to give you a quicker recovery—and an easier one!

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ABSTRACTS

Improvement of Body Mechanics

Improvement of Body Mechanics in Adolescent Children. C. D. Sweet. Am. J. Dis. Child., 74:503-506 (October) 1947.

One of the commonest problems presented to physicians by the adolescent patient is faulty posture or body mechanics. The parents become more critical of the child at this age because previously they had thought he would outgrow faulty posture, and now that he is nearly fully grown they want immediate correction. The physician must instruct the parents and the child in simple and effective means of improving bony mechanics and must win the cooperation of the child by making a direct arrangement between himself and the child to carry out a program. The child must be told that his faults of posture are quite common, unless he has some extraordinary deformity, and, therefore, are not a basis for personal criticism. The static muscular effort which is demanded to hold the body fully upright (at its greatest height) can be maintained for only short periods, and relief is sought by a slumping position. The child must be assured that the discomfort of the straightened posture will soon disappear and that the improved appearance and function of his body will repay effort many times. As he observes the fulfilment of the promise, his full cooperation is won.

The most effective way to teach a child to walk well is to have him carry a heavy sandbag on his head for a few minutes each day. All exercises must achieve maximum muscle stretching.

Finally, he is taught to stand with one foot before the other, resting his weight on both or either, with his spine fully extended and his knees and his hips slightly flexed. In this position, when fatigue is felt, it is necessary only to interchange the positions of the feet for complete relief. —*D.R.D.*

* * *

Insulin Resistance

Insulin Resistance. Arnold R. Axelrod, Sidney Lobe, James M. Orten and Gordon B. Myers. Ann. Int. Med., 27:4, 555-574 (October) 1947.

These authors note that a depancreatized man is relatively insulin sensitive and requires only 35 to 50 units daily. Insulin resistance in a diabetic is considered to be present when doses of 200 units or more per day fail to reduce the blood sugar in non-acidotic individuals during 48 hours observation.

A classification of causes of insulin resistance is presented as follows:

A. Unavailability of administered insulin due to
   1. Failure of absorption
   2. Excessive output of hormonal antagonists

B. Neutralization or destruction in blood or tissues
   1. Abnormal leukocytic activity
   2. Excessive output of hormonal antagonists
   3. Development of antibodies

C. Inability of end organs to utilize insulin
   1. Acidosis and/or infection
   2. Diffuse hepatic disease.

D. Unknown

Three cases are then presented which demonstrate the appearance of insulin resistance with its subsequent disappearance. Detailed studies were conducted in an effort to classify the resistance into any of the above known groups, but without success.

They emphasize the necessity for meeting insulin requirements in such cases, regardless of the 24-hour amount needed. In their cases, single large doses proved better than multiple small doses.

Taurine was given in one case because of a reported potentiating effect on insulin in the rabbit, and was without benefit. Stilbestrol was used in two cases because of reports that estrogens increase insulin sensitivity. Results were encouraging, but not conclusive.

The greatest reductions in insulin requirements in the three reported cases occurred spontaneously and apparently independent of therapy.—*E.J.R.*

* * *

Nerve Block for Fractured Ribs

Nerve Blocking, Therapy for Fractured Ribs. D. J. Richardson and E. M. Popper. Dig. of Treat. (from Jnl. Thoracic Surg.), 11:7, 411-413 (January) 1948.

Two hundred seventeen patients with fractured ribs were treated with either paravertebral or intercostal nerve block. It proved useful in controlling pain, in preventing more serious complications and in reducing mortality.

The procedure enables the patient to cough freely without pain, hence promotes tracheobronchial drainage and normal or increased pulmonary ventilation, permits abandonment of voluntary splinting of respiratory movements and possibly releases bronchial and bronchiolar spasm. The need for rigid immobilization is eliminated.

The injection of a single intercostal nerve does not always afford complete relief, since the innervation of the rib by accessory filaments from the contiguous nerves is not interrupted, so if intercostal block is used the one above and below must also be injected. Paravertebral injections are to be preferred, and it is recommended that in addition to the nerve corresponding to the fractured bone the next above and below are injected. The technic: a wheal is made along the midaxillary line in the intercostal space below the rib involved, through this wheal a 5 cm. needle unattached to the syringe is introduced and passed under the lower border of the rib in the direction of the intercostal nerve, and injection is completed with 3 to 5 cc. of solution. Meticulous care is necessary to avoid intravascular or intrapleural injection. A drop of solution on the needle hub opening is advised as it would be sucked in if the pleural cavity was entered and gentle aspiration would indicate presence of the needle in a vascular channel. Infiltration at the site of fracture has been used but due to usual contusions and other reasons is inadvisable.

Dangers consequent to those procedures are the possibility of entering the lung, the pleural cavity, a blood vessel or the subarachnoid space. Careful aspiration will obviate this. Less than 25 per cent required more than one treatment.

A solution of (1 to 270) procaine followed by the injection of absolute alcohol was used in two-thirds of the patients. When procaine and absolute alcohol were used together the relief of pain was longer than by the use of procaine alone.

These results indicate that relief of pain with nerve block is of significant value in preventing pulmonary infections and death of patients with fractured ribs.—*P.W.M.*

* * *

Growth During Adolescence

Physical Growth during Adolescence. H. C. Stuart. Am. J. Dis. Child., 74:495-502 (October) 1947.

Established 1897

50 Years

TREATING ALCOHOL AND DRUG ADDICTION

In 1897 Doctor B. B. Ralph developed methods of treating alcohol and narcotic addiction that, by the standards of the time, were conspicuous for success.

Twenty-five years ago experience had bettered the methods. Today with the advantages of collateral medicine, treatment is markedly further improved.

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There are three major phases in the progress of growth from conception to full maturity. The first and last of these phases are characterized by cycles of acceleration followed by deceleration in growth rates, both are accompanied with striking developmental changes. The middle phase, in contrast, is one of relatively steady, moderate progress in both growth and maturation. Maximum growth occurs most commonly in this country among girls during the 13th year of life and among boys during the 15th year.

This paper is devoted to growth during pubescence, which is characterized by acceleration in the rate of increase up to a peak of rapid gain, followed, after a variable but brief period of maximum growth in the major body measurements, by rapid deceleration. The period of rapid growth of skeletal muscles is considerably longer than that of growth in height, particularly in the boy. Early maturing children tend to have narrow shoulders, broad hips and short legs and to accumulate fat in the subcutaneous tissues readily, whereas late maturing children tend to show the reverse of this picture. The body growth, osseous maturation, growth of the sex organs and differentiation of secondary sex characters normally progress together in associated stages. As an example, girls who reach their maximum growth two years before the average will reach the menarche about two years in advance. They will also attain the successive stages of breast and hair development, will be advanced in osseous development and will also cease growing about this much in advance of the average. Psychologic and emotional characteristics of adolescence appear in a somewhat parallel manner. Hence, the behavior at a given age of a late maturing girl may be expected to be very different from that of one who is maturing early.

Criteria for the appraisal of maturation during the adolescent years are of practical importance in connection with health examinations and, particularly, in the understanding of persons who manifest unusual behavior during this time. The physician should learn to note the stages of development of the various sex characters which can be observed and to appreciate what hidden changes are probably associated with them. Body measurement standards, weight standards, studies of roentgenograms, hormone assays and determination of other physiologic states may be used to advantage in unusual cases.

Food requirements are extremely high during pubescence. Suitable food will be eaten if it is made available. However, unsuitable foods will satisfy the appetite, and faulty habits of food selection formed in earlier years will often be carried over into this period and prevent the taking of an adequate diet. The principal need is for a high protein diet, covered by a liberal allowance of calories. The obesity sometimes present during this period is important from the physical and from the psychological standpoint. The effect on participation in sports and other activities, and hence on muscular development, body mechanics and physical fitness at maturity, is probably great. The effects on social adjustments, the acquiring of skills and the child's emotional life are probably equally important. Chronic undernutrition during childhood appears to retard development as well as growth. Racial differences in respect to age of pubescence seem to be explained in part by socioeconomic factors and national dietary customs. The pubescent child is in a stage of profound change and instability, often of physical stress and emotional turmoil.

Lack of uniformity in advancement, or retardation, in physical, intellectual or emotional fields gives rise to problems.—*D.R.D.*

Kirschner Wire Traction

Kirschner Wire Traction in Elbow and Upper Arm Injuries. Frederick M. Smith. Am. Jnl. Surg., LXXIV:5, 770-787 (November) 1947.

A device for providing skeletal traction for fractures of the humerus is described. A Kirschner wire is inserted through the olecranon and traction is provided through an overhead pulley. A second line of traction is furnished on the humerus laterally by a swathe on a spreader which provides traction over a pulley at the side of the arm. The forearm is also suspended by a swathe and spreader with overhead traction which is counter-balanced so that the forearm, which is put up at about 90 degrees with the humerus, may be flexed or extended at will. Illustrations and x-rays are provided and the results in a series of 93 cases are evaluated. (NOTE: The device would appear to be especially valuable where the patient is confined to bed and therefore unable to wear a "hanging cast.")—*T.P.B.*

* * *

Anesthesia Study Commission

Anesthesia Study Commission—Findings of Eleven Years' Activity. Henry S. Ruth, Frederick P. Haugen and D. Dwight Grove, J.A.M.A., 135:881-884 (Dec. 6) 1947.

The authors have outlined the activities of the Anesthesia Study Commission of the Philadelphia County Society during the 11 years of its existence. Its purpose and objectives have been to develop continuous improvement in anesthesiologic care by a frank and public discussion of the anesthetic practices involved.

This has been one of the first efforts of a group of trained anesthesiologists to study critically a large group of fatalities occurring during or shortly after anesthesia. The deaths themselves are not emphasized, but rather the educational factors that can be derived from the circumstances under which they occurred.

The cases studied are offered this commission on a voluntary basis from the various hospitals in the area of metropolitan Philadelphia. Complete anonymity is the rule. The name of the hospital, patient, surgeon or anesthetist is not mentioned. The case is presented by the chair, discussed freely from the floor and then a vote is taken as to whether the death was preventable from the standpoint of anesthesia. If it was preventable they decide what was the fault; i.e. choice of anesthetic agent, technic, management, etc. The probable cause of death and contributing factors are also decided. Recommendations are made as to how the particular case might have been better managed.

The authors point out that until the last two decades little emphasis was placed on the contributions of anesthesia to the total of surgical fatalities. In many institutions anesthesia has not progressed very much in the century since its introduction.

The authors stress the thesis that rather than blaming any particular drug or technic for fatalities one must first look to the skill and experience of the person managing the anesthetic and the care of the patient during the period of anesthesia and immediately thereafter.

Interest in this pioneer group has greatly increased during recent years and the need for many more such groups is indicated.

Of the total of 307 cases reported 47 per cent were classified as preventable. Thirty-eight per cent were classified as non-preventable, the other 15 per cent unclassified chiefly because of inadequate data on which to base an opinion. A higher incidence of preventable deaths occurred in patients in good preoperative physical condition

Experience is the Best Teacher



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(1861-1923)

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BALLANTYNE, in his early studies of anatomical and pathological conditions found in the new-born, sensed the value of routine prenatal care in obstetrics. As a pioneer for prenatal care he was the first to establish a clinic for the expectant mother. World-wide acceptance of Ballantyne's concepts quickly followed his successful experiences in prenatal supervision.

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and in age groups usually considered optimum risks for anesthesia. The relationship of preventable deaths to the use of the various agents and methods and the probable cause of death is presented. The need for postoperative observation rooms under trained personnel and with adequate equipment for aspiration, resuscitation and shock therapy was stressed. Eight tables, one reference.—*H.F.S.*

* * *

Nitrogen Mustards in Hodgkin's Disease

Nitrogen Mustards in Hodgkin's Disease. M.I.R. Ap. Thomas, H. Cullumbine. Digest of Treatment (from Lancet) 11:7, 409-410 (January) 1948.

Twenty-one cases of Hodgkin's disease, in an advanced stage, some recurrent after radiotherapy and four other reticuloses, were given intravenously every 24 hours for four days, 0.1 to 0.2 mg. of the bis form of the drug per Kg body weight. Dilution in 500 cc. saline proved to have no advantage over using 10 to 20 cc. of saline as diluent. Nausea, vomiting, thrombosis at the site of injection and leukopenia (3 to 21 days after treatment) accompanied by anemia, thrombacytopenia stomatitis and petechial hemorrhages were observed in some patients.

Not all patients improved. Thirteen had two courses and four had three courses, and of those four only two were improved. A case each of reticulum cell sarcoma and of mycosis fungoides showed no improvement. One of two cases of lympho-sarcoma improved. Improvement in general condition, nodes and other signs occurred more quickly with nitrogen mustard than with x-rays but was of shorter duration.

The authors conclude that radiotherapy is to be preferred as a first treatment in Hodgkin's disease since, though improvement is slower than with nitrogen mustards it is maintained longer and the side effects are less serious.—*P.W.M.*

Benefit Shoe Foundation

As the result of a suggestion made by the National Foundation for Infantile Paralysis, a Benefit Shoe Foundation, a non-profit corporation offering single shoes and odd pairs for amputees, paraplegics and others with mismated feet, has become a project of Bristol Manufacturing corporation. Dr. Dale D. Dutton, vice president in charge of Christian relations, directs operation of the plan.

No orthopedic or special shoes will be provided. Instead, standard make shoes, singly or in mismated pairs, will be sold. Men will have a choice of nine styles in 10 sizes and five widths and women will be able to buy eight styles in 11 sizes and five widths.

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REFRESHER COURSE IN PEDIATRICS AND PUBLIC HEALTH

April 12-15, 1948

UNIVERSITY OF KANSAS MEDICAL CENTER, KANSAS CITY

FACULTY

Guest Instructors:

JOHN M. ADAMS, M.D., Associate Professor of Pediatrics, University of Minnesota School of Medicine, Minneapolis, Minnesota.
LUCIUS E. ECKLES, M.D., Topeka, Kansas.
MICHAEL L. FURCULOW, M.D., Surgeon, U. S. Public Health Service, Kansas City, Kansas.
ELDRED LA MONTE GANN, M.D., Johns Hopkins University School of Medicine, Baltimore, Maryland.
MARTIN F. PALMER, Ph. D., Director of Institute of Logipedics, Wichita, Kansas.
BENJAMIN SPOCK, M.D., Rochester Child Health Project, Mayo Clinic, Rochester, Minnesota.
ALFRED H. WASHBURN, M.D., Director Child Research Council, University of Colorado School of Medicine, Denver, Colorado.

University of Kansas Faculty

HERBERT V. DAVIS, M.D., Instructor in Pediatrics.
ROBERT C. FREDEEN, M.D., Associate in Pediatrics.
GEORGE V. HERRMAN, M.D., Assistant Professor of Pediatrics.
JAMES E. McCONCHIE, M.D., Instructor in Radiology.
DONALD N. MEDEARIS, M.D., Assistant Professor of Pediatrics.
HERBERT C. MILLER, M.D., Professor of Pediatrics.
FRANKLIN D. MURPHY, M.D., Instructor in Medicine.
PAUL W. SCHAFER, M.D., Assistant Professor of Surgery.
WILLIAM L. VALK, M.D., Professor of Clinical Surgery (Urology).
JAMES B. WEAVER, M.D., Professor of Clinical Surgery (Orthopedics).
HERBERT A. WENNER, M.D., Assistant Professor of Pediatrics.
ORVAL R. WITHERS, M.D., Associate Professor of Clinical Medicine.

SUBJECTS TO BE DISCUSSED

Procedures for Administering Fluids and Blood by Vein and by Clysis.
Role of Water and Salt in Production of Dehydration and a Rational Plan of Treatment.
Etiology of Acidosis and its Treatment.
Use of Plasma and Whole Blood in Pediatric Practice.
Salicylic Acid Poisoning.
Medicine as Human Biology—The Human Growth Pattern.
Emotional Problems of Infancy.
The Significance of the Individual's Variations Within the Human Pattern.
Basic Factors in Allergy in Children.
Treatment of Eczema.
Diagnosis and Treatment of Respiratory Allergy in Children.
Emotional Problems of the Pre-School Child.
Evaluation and Prediction from Individual's Characteristic Pattern.
Problems of the School-Age Child.
Diagnosis and Treatment of Congenital Heart Disease in Children.
Replacement Transfusion in Erythroblastosis Fetalis.
Primary Respiratory Diseases, the Common Cold and Exudative Tonsilitis and Pharyngitis.
Use of Streptomycin in Pediatric Practice.
Diagnosis and Treatment of Speech Defects in Children.
Recent Advances in Diagnosis of Histoplasmosis.
Common Urological Problems in Children.
Influenza in Infants and Children.
Diagnosis of Deafness in Children and Evaluation of Treatment with Radium.
Care of the Feet and Related Orthopedic Problems in Infancy and Early Childhood.
Primary Pneumonitis in Children.

THE JOURNAL
of the
KANSAS MEDICAL SOCIETY
Owned and Published by The Kansas Medical Society

Volume XLIX APRIL, 1948 No. 4

Greetings

The Sedgwick County Medical Society feels honored in being accorded the privilege of being host to the Kansas Medical Society for its 89th Annual Session. Each of you, as members of the Kansas Medical Society, is extended a cordial welcome to Wichita, May 10-13, 1948.

Despite the apparent "jitters" which are affecting us nationally at this time, your convention committee has assembled a scientific program which should be of exceptional interest to all doctors of the state.

You are cordially invited to visit the Sedgwick County Medical Society's offices, 1003 Schweiter Building. Our executive offices, the library, and such other facilities as we maintain, are at your disposal.

A program of interest has been arranged by the Sedgwick County Medical Society Auxiliary so that the distaff side of the Kansas Medical Society should enjoy their visit in Wichita tremendously.

Every member of the Sedgwick County Medical Society joins me in saying that, as your host, we wish to make your stay in Wichita as pleasant and profitable as possible. We are looking forward to the pleasure of entertaining you.

J. S. HIBBARD, M. D.

President, Sedgwick County Medical Society



LAWRENCE RANDALL BOIES, M.D.

Minneapolis, Minnesota

Graduate, Columbia University, 1926; Professor of Otolaryngology, University of Minnesota Medical School; Diplomate, American Board of Otolaryngology; Member, American Academy of Ophthalmology and Otolaryngology, American Laryngological, Rhinological and Otological Society, Inc., American Otological Society, American Laryngological Association, American Broncho-Esophagological Society.

Specialty: Ear, Nose and Throat.



WILLIS ELLSWORTH BROWN, M.D.

Iowa City, Iowa

Graduate, University of Michigan, 1934; Associate Professor of Obstetrics and Gynecology, University of Iowa College of Medicine; Fellow, American College of Surgeons; Member, American Federation for Clinical Research, American Association for the Study of Internal Secretions, Central Society of Obstetricians and Gynecologists.

Specialty: Obstetrics and Gynecology.

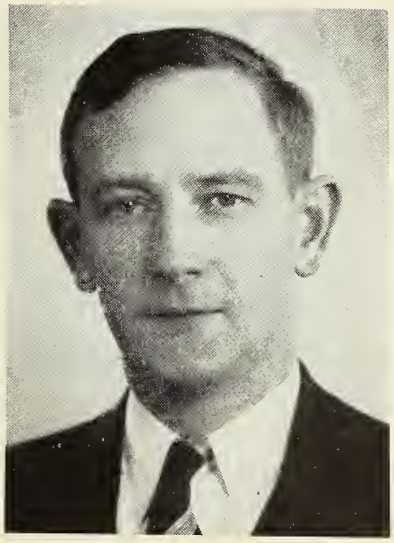


ARTHUR CARLTON ERNSTENE, M.D.

Cleveland, Ohio

Graduate, State University of Iowa College of Medicine, 1925; Head of Section on Cardiovascular Disease, Cleveland Clinic; Fellow, American College of Physicians; Member, American Society for Clinical Investigation, American Clinical and Climatological Association, Central Society for Clinical Research, American Heart Association, American Association for the Advancement of Science.

Specialty: Cardiology.



RICHARD KENNEDY GILCHRIST, M.D.

Chicago, Illinois

Graduate, Rush Medical College, 1931; Clinical Associate Professor of Surgery, (Rush) University of Illinois; Attending Surgeon, Cook County Hospital; Associate Attending Surgeon, Presbyterian Hospital; Diplomate, American Board of Surgery; Member, American Surgical Association.

Specialty: Surgery.



ARILD EDSTEN HANSEN, M.D.

Galveston, Texas

Graduate, University of Minnesota, 1925; Professor and Chairman, Department of Pediatrics, University of Texas School of Medicine; Director, University of Texas Child Health Program; Member, American Pediatric Society, American Academy of Pediatrics, Society for Pediatric Research, American Society for Clinical Investigation, American Institute of Nutrition, Society for Experimental Biology and Medicine; American Society for Experimental Pathology, American Council on Rheumatic Fever.

Specialty: Pediatrics.



JOHN HEWITT JUDD, M.D.

Omaha, Nebraska

Graduate, University of Nebraska College of Medicine, 1924; Professor of Ophthalmology and Chairman of the Department, University of Nebraska College of Medicine; Diplomate, American Board of Ophthalmology; Member, American Academy of Ophthalmology and Otolaryngology, Association for Research in Ophthalmology.

Specialty: Ophthalmology.



BALDWIN LONGSTRETH KEYES, M.D.

Philadelphia, Pennsylvania

Graduate, Jefferson Medical College of Philadelphia, 1917; Professor of Psychiatry, Jefferson Medical College; Senior Consultant, Veterans Administration; Consultant, Philadelphia General Hospital, Institute of the Pennsylvania Hospital; Fellow, American College of Physicians, American Psychiatric Association; Member, American Neurological Association and Society of Research for Nervous and Mental Diseases.

Specialty: Psychiatry and Neurology.



EDWARD HARPER RYNEARSON, M.D.

Rochester, Minnesota

Graduate, University of Pittsburgh School of Medicine, 1926; Associate Professor of Medicine, Mayo Foundation, Graduate School of University of Minnesota; Consultant, Division of Medicine, Mayo Clinic; Diplomate, American Board of Internal Medicine; Fellow, American College of Physicians; Member, Central Society for Clinical Research.

Specialty: Internal Medicine.

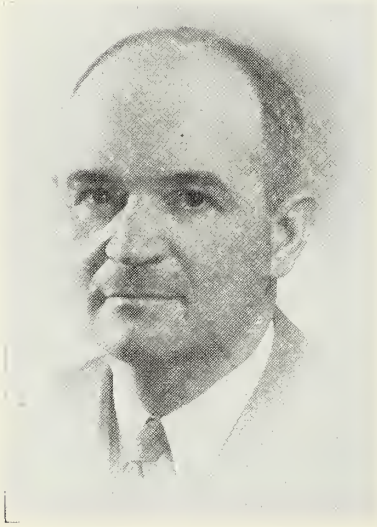


EDWARD BOYCE TUOHY, M.D.

Washington, D.C.

Graduate, University of Pennsylvania, 1932; Professor of Anesthesiology, Georgetown University Medical School; President, American Society of Anesthesiologists; Member, American Association for Advancement of Science, Society on Pharmacology and Experimental Therapeutics.

Specialty: Anesthesiology.



WALTMAN WALTERS, M.D.

Rochester, Minnesota

Graduate, Rush Medical College, 1920; Head of Section in Surgery, Mayo Clinic; Professor of Surgery, Mayo Foundation, University of Minnesota; Editor-in-Chief, Archives of Surgery; Chief Editor, Lewis' Practice of Surgery; Diplomate, American Board of Surgery; Fellow, American College of Surgeons; Member, American Urological Association, Central Society for Clinical Research, Society of Clinical Surgery, Society International de Chirgurie.

Specialty: Surgery.



HENRY MORGAN WINANS, M.D.

Dallas, Texas

Graduate, Johns Hopkins University School of Medicine, 1919; Professor of Medicine and Professor of Medical History, Southwestern Medical College; Chief of Medical Service and Chairman of Medical Board, Baylor University Hospital; Medical Consultant, Veterans Administration.

Specialty: Internal Medicine.

Committee Chairmen

General Chairman—A. L. Ashmore, M.D.
Program—George F. Gsell, M.D.
Arrangements—A. E. Hiebert, M.D.
Commercial Exhibits—George E. Milbank, M.D.
Reception—J. P. Berger, M.D.
Publicity—Louis A. Donnell, M.D.
Scientific Exhibits—Harry O. Anderson, M.D.
Woman's Auxiliary—Donald P. Trees, M.D.
Housing—Bruce P. Meeker, M.D.
Entertainment—Clyde W. Miller, M.D.

TELEPHONE NUMBERS AT THE FORUM—2-9061 AND 5-0693

Schedule of Events

89TH ANNUAL SESSION

Wichita, May 10, 11, 12, 13, 1948

MONDAY MORNING, MAY 10

9:00 ANNUAL MEETING, BOARD OF DIRECTORS, KANSAS PHYSICIANS' SERVICE

10:00 PRACTICE ROUNDS, KANSAS MEDICAL GOLFING ASSOCIATION

MEADOW LARK GOLF CLUB (CORNER HARRY AND OLIVER STREETS)

10:00 PRACTICE SHOOTING, KANSAS MEDICAL SKEET AND TRAPSHOOTING ASSOCIATION

ARK VALLEY GUN CLUB (ACROSS FROM CESSNA AIRCRAFT ON PAWNEE ROAD)

MONDAY AFTERNOON, MAY 10

1:00 COMPETITIVE GOLFING, KANSAS MEDICAL GOLFING ASSOCIATION

MEADOW LARK GOLF CLUB (CORNER HARRY AND OLIVER STREETS)

1:30 COMPETITIVE SHOOTING, KANSAS MEDICAL SKEET AND TRAPSHOOTING ASSOCIATION

ARK VALLEY GUN CLUB (ACROSS FROM CESSNA AIRCRAFT ON PAWNEE ROAD)

7:00 TOURNAMENT BANQUET

BROADVIEW HOTEL, ENGLISH ROOM
Awarding of Prizes for Golf and Marksmanship Tourneys
Election of Officers

TUESDAY MORNING, MAY 11

8:00 REGISTRATION

NORTH ENTRANCE OF FORUM
Open 8:00 A.M. to 5:00 P.M.

OPENING OF SCIENTIFIC AND TECHNICAL EXHIBITS
ROSE ROOM, FORUM

FIRST GENERAL SESSION

ARCADIA THEATER, FORUM
Presiding: J. S. Hibbard, M.D., Wichita, Kansas

9:00 ADDRESS OF WELCOME

J. S. Hibbard, M.D., President, Sedgwick County Medical Society, Wichita, Kansas

GREETINGS

Mayor of Wichita, Kansas
Mr. Ray Bonous, Representative of Chamber of Commerce, Wichita, Kansas

9:30 HYPERTENSION

A. Carlton Ernstene, M.D., Cleveland, Ohio

An outline of the various types of hypertension and their diagnostic features, together with a summary of present concepts of the etiology of essential hypertension. The important complications of the latter condition will be reviewed with particular reference to their bearing on prognosis. Medical and surgical treatment will be discussed.

10:15 FACTORS INFLUENCING THE OUTLOOK FOR THE CHILD WITH RHEUMATIC FEVER

Arild E. Hansen, M.D., Galveston, Texas

It is now a well-recognized fact that rheumatic fever, with its associated rheumatic heart disease, is responsible for more deaths than any other disease in school-age children in the United States. In addition, it is one of the chief disability producers among our chldren and youth. In a particular attack of rheumatic fever, the single most significant factor regarding prognosis is the presence of carditis. Consideration will be given to the factors affecting the outlook of the disease, such as age at onset, type of onset, character of manifestations, severity of the individual attack, also the number of attacks and interval between attacks. There will be further discussion of the influence of types of therapy, especially during the convalescent and quiescent phases, in regard to the ultimate prognosis. These will be in relation to diet, convalescent home care, climate change, use of salicylates, streptococcus toxin and sulfa phophylaxis.

11:00 INTERMISSION

11:15 MALIGNANT LESIONS OF THE STOMACH

Waltman Walters, M.D., Rochester, Minnesota

The incidence of carcinoma of the stomach, methods for its early detection, and possible sources of error in distinguishing between benign and malignant lesions of the stomach will be discussed. The role of the ulcerating gastric lesion and the so-called benign gastric tumor as precursors of malignant degeneration will be evaluated. Mass roentgenologic examinations of the stomach, microscopic examination of gastric cells obtained in gastric washings, studies of gastric acidity and gastroscopic examinations as a means of detection of early gastric carcinoma will be discussed. Reference will be made to the use of radio active halogens in the study of gastric carcinoma. The results of surgical treatment of detectable carcinoma of the stomach will be presented.

12:00 ROUND TABLE LUNCHEONS

ANESTHESIOLOGY—LASSEN HOTEL
Guest Speaker: Edward B. Tuohy, M.D., Washington, D.C.
Presiding: C. D. McKeown, M.D., Wichita, Kansas
Organization Meeting, Kansas Section of American Society of Anesthesiology.

E.E.N.T.—BROADVIEW HOTEL
Guest Speakers: Lawrence R. Boies, M.D., Minneapolis, Minnesota
J. Hewitt Judd, M.D., Omaha, Nebraska
Presiding: C. J. Mullen, M.D., Kansas City, Kansas

TUESDAY ROUND TABLE LUNCHEONS, CONTINUED

HEART—LASSEN HOTEL
Guest Speaker: A. Carlton Ernstene, M.D., Cleveland, Ohio
Presiding: Philip W. Morgan, M.D., Emporia, Kansas

MEETING, KANSAS HEART ASSOCIATION
Philip W. Morgan, M.D., President

PEDIATRICS—BROADVIEW HOTEL
Guest Speaker: Arild E. Hansen, M.D., Galveston, Texas
Presiding: H. C. Miller, M.D., Kansas City, Kansas

SURGERY—ALLIS HOTEL
Guest Speaker: Waltman Walters, M.D., Rochester, Minnesota
Presiding: E. S. Edgerton, M.D., Wichita, Kansas

TUESDAY AFTERNOON, MAY 11

SECOND GENERAL SESSION

ARCADIA THEATER, FORUM

Presiding: Oscar W. Davidson, M.D., Kansas City, Kansas

2:00 PRESIDENT'S ADDRESS

Laurence S. Nelson, M.D., Salina, Kansas

2:20 THE YEAR AHEAD

Oscar W. Davidson, M.D., Kansas City, Kansas

2:30 CHOICE OF ANESTHETIC AGENTS AND PROCEDURES

Edward B. Tuohy, M.D., Washington, D.C.

This paper will present a discussion of the various anesthetic agents and their application. Their choice is determined by many factors, the patient's condition and the ability of the anesthesiologist to use them properly.

3:15 INTERMISSION

3:30 TRENDS IN THE PROBLEM OF INFANTILE DIARRHEA

Arild E. Hansen, M.D., Galveston, Texas

Decrease in the incidence of infantile diarrhea has contributed in a large measure to the remarkable reduction of infant death rates. However, the problem still remains important to practitioners of medicine because of (1) failure to exercise proper control measures in its prevention which concerns especially the hospital routines in regard to nursery care, and (2) recognition of the seriousness of the disease in the small infant. It must be emphasized that this is often an emergency condition requiring skill in techniques fully as important as those used in treatment of surgical conditions. Equally as important is the realization that adequacy of treatment is dependent upon the understanding of physiological requirements and functions. The subject will be discussed on the basis of experiences with this problem in carrying out the University of Texas Child Health Program. A significant advance has been the recognition of the importance of potassium in the replenishment fluids which are used to correct dehydration and acidosis.

4:15 THE TREATMENT OF CONGESTIVE HEART FAILURE

A. Carlton Ernstene, M.D., Cleveland, Ohio

A discussion of the various measures employed in the management of congestive myocardial failure, with particular emphasis upon the importance of an adequate period of rest in bed, strict limitation of the sodium content of the diet, and the use of digitalis and diuretic drugs. The indications for venesection and thoracentesis also will be outlined.

TUESDAY EVENING, MAY 11, CONTINUED

6:00 DINNER MEETING, HOUSE OF DELEGATES

EMPIRE ROOM, ALLIS HOTEL

6:30 DINNER FOR WOMEN PHYSICIANS

INNES TEA ROOM

9:00 STAG AND SMOKER

V.F.W. CLUBHOUSE, 3161 SOUTH HYDRAULIC
Dinner, Entertainment

WEDNESDAY MORNING, MAY 12

8:30 REGISTRATION

NORTH ENTRANCE OF FORUM
Open 8:30 A.M. to 5:00 P.M.

OPENING OF SCIENTIFIC AND TECHNICAL EXHIBITS
ROSE ROOM, FORUM

THIRD GENERAL SESSION

ARCADIA THEATER, FORUM
Presiding: John Porter, M.D., Concordia, Kansas

9:00 MANAGEMENT OF NEUROSES

Baldwin L. Keyes, M.D., Philadelphia, Pennsylvania

A discussion of methods of treatment of neuroses for the physician in general practice, particularly where continued psychiatric care is not available. A brief discussion of modern psychotherapeutic methods indicating compromise measures adaptable to general practice and suggestions for procedures to aid in the control and management of patients suffering from neuroses.

9:50 EVALUATION OF SURGICAL TREATMENT OF PEPTIC ULCER WITH SPECIAL REFERENCE TO VAGOTOMY

Waltman Walters, M.D., Rochester, Minnesota

The operation of resection of the vagus nerves in the treatment of peptic ulcer is not a new procedure but Dragstedt deserves credit for reviving interest in it and calling attention to its value, particularly in cases of recurring ulceration after resection of the stomach. In such cases it has a very definite indication. The immediate relief of pain and the lack of any undesirable symptoms are striking. Resection of the vagus nerves also has a place in the treatment of recurring ulcer after gastro-enterostomy. Ulcers may recur not only after gastro-enterostomy or gastric resection but also after vagotomy. Also, in some cases ulcerating lesions have failed to heal after vagotomy. The most troublesome thing following the operation of vagotomy is the dilatation of the stomach; disturbances of motility, produced in more than 14 per cent of my cases, have persisted for many months. Partial gastrectomy remains the operation of choice in the treatment of chronic recurring gastric ulcer and in most cases of surgical duodenal ulcer.

10:40 INTERMISSION

WEDNESDAY MORNING, MAY 12, CONTINUED

10:55 THE PHYSICAL EXAMINATION

Henry M. Winans, M.D., Dallas, Texas

While regular physical examinations of both the well and ill individuals are desirable there are certain dangers inherent both for the physician and the patient. The physician faces limitations which should be well understood, and the patient may believe he has received something which in reality is unobtainable. A consideration of these problems and representative examples will be given.

11:45 ROUND TABLE LUNCHEON—FORUM

Presiding: Laurence S. Nelson, M.D., Salina, Kansas
Moderator: C. W. Erickson, M.D., Pittsburg, Kansas
A special program of interest to every physician in Kansas.

WEDNESDAY AFTERNOON, MAY 12

FOURTH GENERAL SESSION

ARCADIA THEATER, FORUM
Presiding: Robert Sohlberg, M.D., McPherson, Kansas

1:45 THE MANAGEMENT OF ABORTION

Willis E. Brown, M.D., Iowa City, Iowa

The diagnosis of pregnancy in the presence of abnormal bleeding is often difficult. Amenorrhea followed by bleeding and cramps is usually indicative of abortion but may also be associated with the involution of a corpus luteum cyst, placentation in a normal pregnancy, ectopic pregnancy and molar pregnancy. The management of each of these clinical conditions requires individual consideration; their treatment will be discussed.

2:30 MIGRAINE

Baldwin L. Keyes, M.D., Philadelphia, Pennsylvania

A brief review of the subject of migraine, indicating some of the present day concepts and treatment measures with a reference to the medicolegal aspects of the problem.

3:15 INTERMISSION

3:30 JET INJECTION (HYPOSPRAY) FOR PARENTERAL MEDICATION

Edward B. Tuohy, M.D., Washington, D.C.

This will be a description of a new apparatus for the parenteral administration of various drugs.

4:15 THE NERVOUS PATIENT

Henry M. Winans, M.D., Dallas, Texas

The so-called nervous patient is at a disadvantage because his physician, realizing the extra time and added difficulty involved, may not be properly conditioned to give him the best attention. Not all nervous patients have psychiatric problems nor do they properly fall into the group classified as psychosomatic. Furthermore, if undue emphasis is placed upon the psychiatric aspects, serious diagnostic mistakes may be made. A rational mode of procedure for dealing with these patients, together with typical illustrations, will be discussed.

WEDNESDAY EVENING, MAY 12, CONTINUED

7:00 ANNUAL BANQUET—ROOF GARDEN, BROADVIEW HOTEL

Dinner Music
Introduction of Honored Guests
Program—Professional Entertainment

A splendid group of professional entertainers has been engaged for the banquet this year. These fine performers who will dance, sing, bring you ventriloquism and comedy, will provide a memorable evening of relaxation.

9:00 DANCING

THURSDAY MORNING, MAY 13

8:30 REGISTRATION

NORTH ENTRANCE OF FORUM

OPENING OF SCIENTIFIC AND TECHNICAL EXHIBITS

ROSE ROOM, FORUM

FIFTH GENERAL SESSION

ARCADIA THEATER, FORUM
Presiding: D. D. Vermillion, M.D., Goodland, Kansas

9:00 PROGNOSIS IN CARCINOMA OF THE RECTUM

Richard K. Gilchrist, M.D., Chicago, Illinois

In this paper will be presented a comparison of the prognosis following various types of operative attacks on carcinoma of the rectum and a discussion of the relation of the stage of the disease to life expectancy.

9:50 HYPERPARATHYROIDISM AND HYPOPARATHYROIDISM

Edward H. Rynearson, M.D., Rochester, Minnesota

Diseases of the skeletal system, particularly cystic bone disease, will be discussed. A discussion on hypoparathyroidism, manifested by tetany, will also be presented.

10:40 INTERMISSION

10:55 PREJUDICIAL PRACTICES IN THE MANAGEMENT OF ECLAMPSIA

Willis E. Brown, M.D., Iowa City, Iowa

Eclampsia is a clinical syndrome of unknown etiology. Therefore, it must be treated symptomatically. Certain general principles need clarification and emphasis, and correlation with recent developments. Disregard of premonitory signs and symptoms, such as rising or fluctuating blood pressure and rapid gain of weight, compromises the physician and forces him to make belated and unfavorable decisions. Procrastination in the face of obvious warnings and failure to induce labor at an optimum time invite disaster.

11:45 ROUND TABLE LUNCHEONS

MEDICINE—BROADVIEW HOTEL
Guest speaker: Edward H. Rynearson, M.D., Rochester, Minnesota
Presiding: Mahlon H. Delp, M.D., Kansas City, Kansas

OBSTETRICS AND GYNECOLOGY—LASSEN HOTEL
Guest Speaker: Willis E. Brown, M.D., Iowa City, Iowa
Presiding: Howard C. Clark, M.D., Wichita, Kansas

MEETING KANSAS OBSTETRICAL AND GYNECOLOGICAL SOCIETY
Howard C. Clark, M.D., President

SURGERY—ALLIS HOTEL
Guest Speaker: Richard K. Gilchrist, M.D., Chicago, Illinois
Presiding: M. J. Rumold, M.D., Kansas City, Kansas

THURSDAY AFTERNOON, MAY 13

SIXTH GENERAL SESSION

ARCADIA THEATER, FORUM

Presiding: C. H. Benage, M.D., Pittsburg, Kansas

2:00 SLIDING HERNIA

Richard K. Gilchrist, M.D., Chicago, Illinois

A discussion of the anatomy, pathology, differential diagnosis and treatment of sliding hernia will be presented.

2:45 THE TREATMENT OF OBESITY

Edward H. Rynearson, M.D., Rochester, Minnesota

Obesity, with few exceptions, is caused by excessive food intake. In this presentation causes will be enumerated and treatment for such conditions will be discussed.

3:30 HOUSE OF DELEGATES

4:30 COUNCIL

Scientific Movies

1. HERNIOPLASTY—modified Bassini technic for cure of indirect inguinal hernia.
2. CHOLELITHIASIS—with common duct stone.
3. SURGICAL TREATMENT OF VARICOSE VEINS—by high ligation, stripping, and excision.
4. PLASTIC PROCEDURE—including full thickness skin grafts following excision of carcinoma of the hand.
5. HIGH AMPUTATION—of leg for arteriosclerotic gangrene.
6. LEFT LOWER LOBECTOMY—for bronchiectasis.
7. CANCER OF THE FEMALE BREAST—diagnosis and surgical treatment.
8. SKIN GRAFTING.
9. PARTIAL RESECTION OF THE STOMACH—for duodenal ulcer, with gastrojejunal anastomosis.
10. TRANSTHORACIC PARTIAL GASTRECTOMY—with intrathoracic esophageo-gastric anastomosis for carcinoma of the cardia.
11. SUBTOTAL GASTRECTOMY.
12. ASEPTIC ILEOCOLOSTOMY—and resection of right colon for cancer.
13. COMBINED ABDOMINO-PERINEAL RESECTION.
14. SUBTOTAL THYROIDECTOMY—for primary hyperthyroidism.
15. INTRATHORACIC GOITER.
16. NEPHRECTOMY—for tuberculosis of the kidney.
17. VAGINAL HYSTERECTOMY—suture method for uterine prolapse.
18. MANCHESTER OPERATION—for uterine prolapse.
19. REDUCTION OF UNDESCENDED TESTIS.
20. PROBLEM CHILD.
21. PEDIATRIC ANESTHESIA.
22. AIDS IN MUSCLE TRAINING.
23. BACK TO NORMAL.
24. BLOOD TRANSFUSION.
25. MEDICAL HISTORY IN CLINICAL TEACHING.
26. PHYSICAL DIAGNOSIS.
27. SYPHILIS—A teaching film.
28. BREECH PRESENTATION WITH MANUAL AID.
29. A LOW CERVICAL CAESAREAN SECTION.
30. RESUSCITATION OF THE NEWBORN.
31. ROENTGEN PELVIMETRY.
32. CARE OF THE PREMATURE INFANT.
33. INTRODUCTION TO ADOLESCENCE.
34. FEEDING THE INFANT DURING THE FIRST YEAR.
35. THE ROLE OF GASTROSCOPY IN THE DIAGNOSIS AND TREATMENT OF GASTRIC PATHOLOGY.
36. MANAGING FRESH WOUNDS OF VIOLENCE.
37. ANATOMICAL AND PATHOLOGICAL CONDITIONS OF THE EAR.
38. DIRECT LARYNGOSCOPY—simplified technique—for early detection of laryngeal cancer.

Round Table Luncheons

TUESDAY, MAY 11

ANESTHESIOLOGY—*Lassen Hotel*

Guest Speaker: Edward B. Tuohy, M.D., Washington, D.C.
Presiding: C. D. McKeown, M.D., Wichita, Kansas
Organization Meeting, Kansas Section of American Society of Anesthesiology.

E.E.N.T.—*Broadview Hotel*

Guest Speakers: Lawrence R. Boies, M.D., Minneapolis, Minnesota
J. Hewitt Judd, M.D., Omaha, Nebraska
Presiding: C. J. Mullen, M.D., Kansas City, Kansas

HEART—*Lassen Hotel*

Guest Speaker: A. Carlton Ernstene, M.D., Cleveland, Ohio
Presiding: Philip W. Morgan, M.D., Emporia, Kansas
Meeting, Kansas Heart Association. Philip W. Morgan, M.D., President.

PEDIATRICS—*Broadview Hotel*

Guest Speaker: Arild E. Hansen, M.D., Galveston, Texas
Presiding: H. C. Miller, M.D., Kansas City, Kansas

SURGERY—*Allis Hotel*

Guest Speaker: Waltman Walters, M.D., Rochester, Minnesota
Presiding: E. S. Edgerton, M.D., Wichita, Kansas

WEDNESDAY, MAY 12

COMBINED ROUND TABLE LUNCHEON—*Forum*

Presiding: Laurence S. Nelson, M.D., Salina, Kansas
Moderator: C. W. Erickson, M.D., Pittsburg, Kansas

THURSDAY, MAY 13

MEDICINE—*Broadview Hotel*

Guest Speaker: Edward H. Rynearson, M.D., Rochester, Minnesota
Presiding: Mahlon H. Delp, M.D., Kansas City, Kansas

OBSTETRICS AND GYNECOLOGY—*Lassen Hotel*

Guest Speaker: Willis E. Brown, M.D., Iowa City, Iowa
Presiding: Howard C. Clark, M.D., Wichita, Kansas
Meeting, Kansas Obstetrical and Gynecological Society, Howard C. Clark, M.D., President.

SURGERY—*Allis Hotel*

Guest Speaker: Richard K. Gilchrist, M.D., Chicago, Illinois
Presiding: M. J. Rumold, M.D., Kansas City, Kansas

Eye, Ear, Nose and Throat Section

TUESDAY, MAY 11, MORNING SESSION

8:00 REGISTRATION

NORTH ENTRANCE OF FORUM
ARCADIA THEATER, FORUM

9:00 ADDRESS OF WELCOME

J. S. Hibbard, M.D., President, Sedgwick County Medical Society, Wichita, Kansas

GREETINGS

Mayor of Wichita
Mr. Roy Bonous, Representative of Chamber of Commerce, Wichita, Kansas

E.E.N.T. SECTION ROOM, FORUM
Presiding: C. J. Mullen, M.D., President, Kansas EENT Society, Kansas City, Kansas
(Since this is a sectional program that perhaps is more informal than the general meetings, the speakers have presented no summaries in advance but will cover the special topics listed below.)

9:30 HEADACHE

Lawrence R. Boies, M.D., Minneapolis, Minnesota

10:30 INTERMISSION

11:00 DIFFERENTIAL DIAGNOSIS AND TREATMENT OF OPTIC NEURITIS

J. Hewitt Judd, M.D., Omaha, Nebraska

12:00 ROUND TABLE LUNCHEON—BROADVIEW HOTEL

Guest Speakers: Lawrence R. Boies, M.D., Minneapolis, Minnesota
J. Hewitt Judd, M.D., Omaha, Nebraska
Presiding: C. J. Mullen, M.D., Kansas City, Kansas

TUESDAY, MAY 11, AFTERNOON SESSION

ARCADIA THEATER, FORUM

2:00 PRESIDENT'S ADDRESS

Laurence S. Nelson, M.D., Salina, Kansas

2:20 THE YEAR AHEAD

Oscar W. Davidson, M.D., Kansas City, Kansas
E.E.N.T SECTION ROOM, FORUM
Presiding: C. J. Mullen, M.D., Kansas City, Kansas

2:30 MIDDLE EAR DISEASE IN CHILDREN

Lawrence R. Boies, M.D., Minneapolis, Minnesota

3:30 INTERMISSION

3:45 THE SURGICAL TREATMENT OF GLAUCOMA

J. Hewitt Judd, M.D., Omaha, Nebraska

WEDNESDAY, MAY 12, MORNING SESSION

E.E.N.T. SECTION ROOM, FORUM
Presiding: C. J. Mullen, M.D., Kansas City, Kansas

9:30 DIAGNOSIS AND TREATMENT OF EXTRAOCULAR MUSCLE LESIONS
J. Hewitt Judd, M.D., Omaha, Nebraska

10:30 INTERMISSION

10:45 CHRONIC SUPPURATIVE OTITIS MEDIA
Lawrence R. Boies, M.D., Minneapolis, Minnesota

11:45 ROUND TABLE LUNCHEON
ROSE ROOM, FORUM

WEDNESDAY, MAY 12, AFTERNOON SESSION

E.E.N.T. SECTION ROOM, FORUM
Presiding: C. J. Mullen, M.D., Kansas City, Kansas

2:00 MANAGEMENT OF CATARACT
J. Hewitt Judd, M.D., Omaha, Nebraska

3:00 INTERMISSION

3:15 MENIERE'S DISEASE
Lawrence R. Boies, M.D, Minneapolis, Minnesota

Technical Exhibits

Booth 1—Lederle Laboratories Division, American Cyanamid Company.
Booth 2—Westinghouse Electric Corporation, X-ray Division.
Booth 3—Medical Protective Company.
Booths 4 and 5—Munns Medical Supply Company.
Booth 6—Eli Lilly and Company.
Booth 7—J. B. Lippincott Company.
Booth 8—Archer-Taylor Drug Company.
Booth 9—Sharp and Dohme, Inc.
Booth 10—Parke, Davis and Company.
Booth 11—Ortho Pharmaceutical Corporation.
Booth 12—United Medical Equipment Company.
Booth 13—The Borden Company.
Booth 14—Riggs Optical Company.
Booth 15—Zemmer Company.
Booth 16—Bilhuber-Knoll Corporation.
Booth 17—Greb X-ray Company.
Booth 18—The Western Typewriter Company.
Booth 19—American Optical Company.
Booth 20—White Laboratories, Inc.
Booth 21—The Doho Chemical Corporation.
Booths 22 and 23—Mid-West Surgical Supply Company.
Booth 24—Lakeside Laboratories.
Booth 25—Pitman-Moore Company.
Booth 26—Riley's Prescription Shop.
Booth 27—American Hospital Supply Corporation.
Booth 28—H. J. Heinz Company.
Booth 29—Mead Johnson and Company.
Booth 30—Phospho-Soda (Fleet).
Booth 31—VanPelt and Brown, Inc.
Booth 32—Holland-Rantos Company, Inc.
Booth 33—Quinton-Duffens Optical Company.
Booth 34—A. S. Aloe Company.
Booth 35—Blue Cross.
Booth 36—Blue Shield.
Booth 40—The Smith-Dorsey Company.
Booth 41—Ciba Pharmaceutical Products, Inc.
Booth 42—Gerber Products Company.
Booth 43—The Williams S. Merrell Company.
Booth 44—G. D. Searle and Company.
Booth 45—Smith, Kline and French Laboratories.
Booths 46 and 47—The S. A. Long Company, Inc.
Booth 48—Kansas Pharmaceutical Association.
Booth 49—The Edison Company.
Booth 50—The W. E. Isle Company.
Booth 51—H. G. Fischer and Company.
Booth 52—Pet Milk Company.
Booth 53—Schering Corporation.
Booth 55—Goetze-Niemer Company.
Booth 59—Veterans Administration.
Booth 60—Kansas Division, American Cancer Society.
Booth 61—Daricraft Homogenized Evaporated Milk.
Booth 62—Winthrop-Stearns, Inc.
Booth 63—Burroughs Wellcome and Company.
Booths 64 and 65—Coca-Cola Company.
Booth 66—Vowel Rental Service.
Booth 67—"Similac".
Booth 68—Fahnestock, Inc.
Booth 70—Masemore Adjustment Company and Medical-Dental Credit Service.
Booth 71—E. R. Squibb and Sons.

PRESIDENT'S PAGE

To the Members of the Kansas Medical Society:

The annual convention of the Kansas Medical Society has become the most educational and enjoyable meeting of our entire year in Kansas. The 1948 meeting, our 89th session, is being prepared by the Sedgwick County Medical Society, which is composed of more than 200 members and thus has the distinction of being the largest county society in the state. They have arranged a fine scientific program in which every member may find intellectual stimulation and help. The high objective, of course, is the promotion of better medicine and surgery for the people of the state of Kansas and to keep the specialist and the general practitioner abreast of the times.

Incident to this central theme there will be both scientific and commercial exhibits worthy of the interest of the most discerning. The commercial exhibitors deserve the opportunity to discuss their products with as many as possible.

The business of our society must be handled by two meetings of the House of Delegates and a meeting of the council following the latter meeting of the delegates. An innovation is that the first of these House of Delegates meetings will be held on Tuesday evening with a dinner at 6:00 o'clock. There will be a smoker beginning at 9:00 o'clock, and it is hoped that the first meeting of the House of Delegates, which according to our constitution must be held on the first day of our session, can be expedited to a degree that will permit the delegates to go to the smoker. The second delegates' meeting will be held on Thursday, the last day of the convention. It is urgently requested that every county society be correctly represented at these important meetings.

The golf contest which will occur on Monday, the 10th of May, has become a delightful experience in recreation and sociability for those who enjoy that famous sport. The trap shoot is of no less interest for those who prefer the odor of gun powder to the thrill of a 30-foot put.

Another innovation this year, which has become necessary for obvious reasons, is that admission to all banquets, round table luncheons, smokers, etc., will be by ticket only and these tickets must be purchased in advance. Those who are careless in deciding which meetings they wish to attend will be disappointed when they appear at the door and cannot be accommodated.

The Wednesday evening entertainment will start at 7:00 p.m. with a banquet, followed immediately by an hour of the best vaudeville attainable and then excellent dance music for those who wish to "trip the light fanstastic."

It is expected that the 89th session of the Kansas Medical Society will maintain the high standard of all such meetings. It will be a memorable experience for all who attend.

L. S. Nelson

President.

EDITORIALS

Laurence S. Nelson, M.D.

In its broadening sphere of activities, the influence of the Kansas Medical Society has grown to proportions the founders probably never dreamed



LAURENCE S. NELSON, M.D.
President

of. These hardy pioneer physicians who obtained a charter from the territorial legislature in 1859 would marvel at the projects the Society is engaged in at the present time.

With these opportunities for service come added responsibilities toward the membership, toward many federal, state and county governmental agencies and toward the public. Projects of service involve the complex interrelations of many health programs, the official public agencies as well as the private voluntary organizations, the scientific achievements of the university as well as the meetings of component societies, committee activities and everything implied by the term public relations —all synchronized to assure the people of Kansas high standards of medical care and better health.

The president of the Kansas Medical Society now finds that his office all but removes him, during that term, from the practice of medicine. This spirit of service has never been demonstrated more unselfishly than by Laurence S. Nelson, M.D., who guided the Society during the past most difficult year. His interest in this responsibility transcended every other activity in which he is engaged. He has found time to consider all problems, however small or large, and has directed the Society soundly. His has been an inspired leadership for which the Society will always be indebted. His accomplishments will be remembered.

Oscar W. Davidson, M.D.

During the coming year the Kansas Medical Society will be guided by the capable hand of Oscar W. Davidson, M.D., who will take office as president at the close of the annual meeting in May. It will be his responsibility to continue the many projects the Society is now sponsoring, to correlate the work of different groups within the Society and to instigate action on new programs. Dr. Davidson will have a strenuous year as leader of the medical profession in Kansas, but he is fully qualified for the many responsibilities he will assume.

Dr. Davidson's interest in the affairs of the Society dates from the time his first membership card was issued. He generously devoted time to committee work, directed several activities as committee chairman, and served as councilor of the Second District for two terms. Upon completion of six years service as councilor, he was elected second vice president, then became first vice president, and last year was named president-elect. He is a member of the executive committee and of the board of directors of Kansas Physicians' Service and has held



OSCAR W. DAVIDSON, M.D.
President-elect

those positions since K.P.S. was organized. In addition, he has been active in medical society work in his home county and served as president of the Wyandotte County Medical Society in 1934.

The president-elect of the Society was graduated

(Continued on Page 184)

Kansas Medical Assistants' Society

Annual Meeting, May 9 and 10, 1948

Allis Hotel, Wichita, Kansas

SUNDAY, MAY 9

9:30 A.M. Registration. Open 9:30 A.M. to 1:30 P.M.

2:00 P.M. Address of Welcome—James S. Hibbard, M.D., President, Sedgwick County Medical Society, Wichita, Kansas.

2:15 P.M. Response—O. W. Davidson, M.D., President-Elect, Kansas Medical Society, Kansas City, Kansas.

2:30 P.M. Decisions of Democracy—Mr. Bob Gadberry, Station KFH, Wichita, Kansas.

3:00 P.M. Interesting Phases of Ear, Nose and Throat—Norton L. Francis, M.D., Wichita, Kansas.

3:30 P.M. The Relation of Our Creed to Our Pin.

4:00 P.M. Election of Officers.

5:00 P.M. Surprise Party.

6:00 P.M. Buffet Supper. Serving from 6:00 P.M. to 7:30 P.M.

7:45 P.M. The Madonna in Art—Miss Regina Lewis, Wichita, Kansas.

MONDAY, MAY 10

8:00 A.M. Registration. Open 8:00 A.M. to 9:30 A.M.

10:00 A.M. Meeting Called to Order—Mrs. Carmen Kline, President, Kansas Medical Assistants' Society, Kansas City, Kansas.

10:05 A.M. Greetings—Mrs. Catherine Kochenderfer, President, Sedgwick County Medical Assistants' Society, Wichita, Kansas.

10:10 A.M. Response—Miss Margaret Griffith, Lyon County Medical Assistants' Society, Emporia, Kansas.

10:15 A.M. Practical Phases of Clinical Pathology—D. Cramer Reed, M.D., Wichita, Kansas.

10:45 A.M. The Problem of Speech Defects in Kansas—Mr. Forrest M. Hull, Institute of Logopedics, Wichita, Kansas.

11:15 A.M. The Role of the Assistant in Cancer Control—Mr. Harry M. Dawdy, Executive Director, Kansas Division, American Cancer Society, Topeka, Kansas.

12:30 P.M. Luncheon.
"Resource Full Kansas"—Mr. R. D. Bounous, Wichita Chamber of Commerce, Wichita, Kansas.

2:00 P.M. Installation of Officers.

3:00 P.M. Viewing of Exhibits, Rose Room, Forum.

Woman's Auxiliary To The Kansas Medical Society

TUESDAY, MAY 11

9:00 A.M. REGISTRATION AT THE FORUM

9:30 A.M. PRE-BOARD MEETING
ALLIS HOTEL, AVIATION ROOM

12:15 P.M. LUNCHEON HONORING MRS. EUSTACE A. ALLEN, NATIONAL AUXILIARY PRESIDENT, ATLANTA, GEORGIA
ALLIS HOTEL, BALL ROOM

A MESSAGE FROM THE NATIONAL AUXILIARY
Mrs. Eustace A. Allen, Atlanta, Georgia

SPRING STYLE SHOW
Woolf Brothers, Inc.

Note: No reservations for luncheon taken after ten o'clock

8:30 P.M. INFORMAL PARTY
BROADVIEW HOTEL, BAMBOO ROOM

WEDNESDAY, MAY 12

9:00 A.M. REGISTRATION AT THE FORUM

9:30 A.M. GENERAL MEETING
ALLIS HOTEL, AVIATION ROOM

1:00 P.M. LUNCHEON HONORING STATE OFFICERS — LABETTE COUNTY AUXILIARY IN CHARGE
LASSEN HOTEL, BALL ROOM

NURSE RECRUITMENT
Nina Wisler, R.N., Wichita, Kansas

FILM—SERVING MANKIND

MUSIC

7:00 P.M. ANNUAL KANSAS MEDICAL SOCIETY BANQUET
BROADVIEW HOTEL, ROOF GARDEN

THURSDAY, MAY 13

9:30 A.M. COFFEE
GAS SERVICE COMPANY AUDITORIUM (SOUTH BROADWAY)

ADDRESS
Miss Bea Pyle, Food Economist, Armour and Company, Wichita, Kansas

12:30 P.M. POST BOARD MEETING

LUNCHEON AT MRS. E. L. COOPER'S CABIN
Transportation will be provided

COMMITTEE CHAIRMEN

General Chairman—Mrs. C. C. Tucker, Wichita, Kansas
Co-Chairman—Mrs. E. L. Cooper, Wichita, Kansas
Courtesy Chairman—Mrs. Charles L. Woodhouse, Wichita, Kansas
Post Board Luncheon Chairman—Mrs. E. L. Cooper, Wichita, Kansas
Tuesday Luncheon Chairman—Mrs. Donald O. Howard, Wichita, Kansas
Wednesday Luncheon Chairman—Mrs. I. Joseph Waxse, Oswego, Kansas

Councilor Reports

FIRST DISTRICT

To the House of Delegates:

The medical situation in the district is fairly satisfactory. All the counties but Doniphan have plenty of physicians to meet the needs.

Two meetings were held during the year, both at the Sabetha Country Club. The one in the spring was a stag affair, and the attending physicians enjoyed an afternoon of golf with a buffet luncheon in the evening followed by a short program.

On November 20 we held a joint meeting with the Auxiliary members of the district. We were honored by having with us at that meeting Mrs. M. A. Brawley of Frankfort, councilor for the First District. She and Mrs. Conrad Barnes of Seneca gave nice presentations of the aims and needs of the Auxiliary.

Dr. Conrad Barnes gave a supplemental report of the activities of the Committee on Rural Health of the Kansas Medical Society.

A tribute was paid Dr. Sam M. Myers of Corning for having completed more than 50 years in the active practice of medicine. He and Mrs. Myers recently celebrated their 50th wedding anniversary. Everyone congratulates them on their fine achievements.

We wish to thank the Nemaha County Medical Society for being such splendid hosts to our two meetings.

Respectfully submitted,

R. T. Nichols, M.D., *Councilor.*

SECOND DISTRICT

To the House of Delegates:

As is known by the Society, the past year has seen situations arise to require more than the normal number of meetings of the Council. On several of these occasions the Council deliberated on matters of far reaching importance which, in one way or another, would involve not only the component societies but also all individual members.

The councilor of the Second District has attempted to serve the physicians in his area during the course of these meetings and has tried to inform the component societies of action that has been taken. It is the belief of the councilor that the societies comprising the Second District are functioning satisfactorily, that scientific meetings have been held regularly, and that no local problems of significance exist within any of the groups. Each society is cooperating in the work of the Kansas Medical Society and, as far as is known, approves of the action recently taken by the Council and by the House of Delegates.

Respectfully submitted,

Lewis G. Allen, M.D., *Councilor.*

THIRD DISTRICT

To the House of Delegates:

The past year has been one of adjustments which, I'm proud to report from the Third District, were made very smoothly. We have received several new men and these new men have, in my opinion, been graciously accepted and assisted in starting their practices. This, to me, speaks of unselfishness.

The district can well use more men, both in specialties and general practice.

The district is proud to have rejuvenated the old Southeast Kansas organization, which is being enthusiastically received. The speakers have been excellent, the hosts most gracious and friendships renewed by ever-increasing attendance.

I feel the veterans' program, prepayment plan program and vocational rehabilitation program have operated very successfully, especially so when the magnitude of each is considered. These programs to some men remain a question as to whether or not they clearly point for us the right direction. This point is well taken.

I would like to emphasize the need, morally and financially, for each member to assist those national institutions which are directing their full energy toward combating influences destined to disrupt our present system and substitute one, foreign to us, to make medicine subject to federal control.

Respectfully submitted,

C. H. Benage, M.D., *Councilor.*

FOURTH DISTRICT

To the House of Delegates:

Nothing unusual has occurred in the Fourth District during the past year. There is always in Lyon County and surrounding territory marked interest in keeping abreast of the times in things medical. In Emporia there are monthly meetings of the county society and the staffs of Newman and St. Mary's Hospitals. These occur the first three Tuesdays of the month, each preceded by a dinner. There are also meetings of the two accredited cancer diagnostic clinics, one at St. Mary's Hospital and one at Newman Hospital. All of these meetings are well attended, not only by Lyon County physicians but by physicians from surrounding counties in this district.

There is a marked shortage of hospital beds in both hospitals here. Some time ago $250,000 was voted for an addition to Newman Hospital but the contract has not been let so far.

Dr. R. B. Stortz has located at Madison, and Dr. N. A. Burkett has located at Council Grove. Dr. J. H. Buckles recently opened his office at Waverly, thereby giving medical care for that area which had no physician.

I have attended most of the Council meetings as well as the Blue Shield meetings. There is still some confusion among the doctors as well as the patients as to just what the Blue Shield covers. Personally, any services I have rendered Blue Shield members have been taken care of promptly by the Topeka office.

Respectfully submitted,

Frank Foncannon, M.D., *Councilor.*

FIFTH DISTRICT

To the House of Delegates:

It is with pleasure that I prepare this report for the Fifth District, where conditions have shown considerable improvement in medical practice as well as adequate hospital care over the late war years.

The interest in the services of the Veterans Administration for out patients is gradually increasing and that service is becoming more practicable. However, there is still too much delay in obtaining authorizations.

In most of the counties in my district the Blue Shield and Blue Cross are increasing in popularity as they become better understood, and since they are almost inseparable they should be given more attention and consideration in our offices.

The supply of physicians in my district is nearly nor-

mal, and there are few places that do not have adequate medical service.

The county seat towns, Newton, Marion, McPherson, Hutchinson, Lyons, Stafford and Great Bend, have large hospital facilities. Also having Halstead, Little River, Sterling and Hoisington, we do not have a dearth of hospitals although some do lack capacity at times.

We have had no district meetings.

Respectfully submitted,

L. J. Beyer, M.D., *Councilor.*

SIXTH DISTRICT

To the House of Delegates:

The Sixth District has had a very successful and quiet year just past. Meetings have been attended in Sedgwick County where the attendance has been excellent and the quality of the meetings unusually high.

Considerable interest has been manifested in Blue Cross and Blue Shield and, as far as we are able to tell, these organizations have been well received and well supported with only a few minor exceptions.

The raise in dues for the current year, as far as we are able to determine at present, has been very well accepted.

Further than the above, there is nothing of importance to report from the Sixth District at this time.

Respectfully submitted,

Warren F. Bernstorf, M.D., *Councilor.*

SEVENTH DISTRICT

To the House of Delegates:

In my annual report for 1948 for the Seventh District there is even less news of interest than any previous years. I wish, however, to say that medical needs seem to be fairly well taken care of in this district. There have been a few men come into the district, a few have retired and none have died. I now give you a brief summary of each county.

Clay County has the customary 100 per cent membership in its society. There have been no deaths or new men locating in the county since the last report. The society is very much up and coming, and holds interesting meetings.

Cloud County has a membership of 94 per cent. There is one new member, Dr. N. C. McCubbin, who located there in the past year. Dr. W. B. Newton retired and moved to California and Dr. Ellis Starr transferred to Denver. The society holds good meetings and is medical center for a few other counties nearby.

Jewell County has seven physicians, five of whom belong to the society and two who are non-members. They have had no new physicians enter the county. Dr. Harding, who was in Mankato for a few months, moved to California. Due to the small membership they depend on other societies nearby for their scientific meetings. One of the physicians states he would like to retire if he could get someone to relieve him of his practice, which is good.

Mitchell County has 100 per cent membership, eleven physicians including two new men, Dr. H. H. Dunham of Cawker City and Dr. R. P. Weltmer of Beloit. They have an active society.

Republic County has seven physicians with one physician not belonging to the society. They have had no new men or retired physicians in the past year.

Riley County has 25 physicians with 100 per cent membership in the society. One new physician, Dr. W. R. Coutant, located there within the past year. The meetings are interesting and are well attended.

Washington County has eight physicians with 90 per cent membership in the society. There have been no new men, retirements or deaths in the county during the past year.

Respectfully submitted,

R. R. Cave, M.D., *Councilor.*

EIGHTH DISTRICT

To the House of Delegates:

Nothing eventful has happened in the Eighth District throughout the year.

The local medical societies have held regular meetings with good programs and good attendance.

The drive for funds for our hospital extension here is well under way and considerable money has been raised. The drive is being conducted by the American Legion.

I note that the Blue Shield is becoming more evident in this area. Those who have it seem pleased. I too am pleased with what I have seen of it.

Respectfully submitted,

B. H. Mayer, M.D., *Councilor.*

NINTH DISTRICT

To the House of Delegates:

In the Ninth District medical care is excellent. In fact, with new men returning from service and entering practice in our district, our supply of talent is sufficient to merit healthful competition. The district, at present, is a very prosperous one with perhaps the fewest indigents and age group assistance of all times.

There were but two meetings in the district during the last year. However, these were well attended and good programs were enjoyed. Three new members were admitted during the year, Doctors David Lasley at Goodland, C. E. Montgomery at Hoxie and C. W. Wilson at St. Francis. There was one death, Dr. V. C. Eddy of Colby, who was once a member of the Kansas Board of Health and had been one of the early pioneers in medicine at Colby.

As a whole, the construction of the new hospital that looked hopeful a year ago has been going slower than expected. In some instances the increase in cost of construction has required new appropriations. In other instances where federal aid has been granted, it was necessary to re-draft architects' plans to comply with government specifications. These obstacles are being overcome. The outlook is now bright for the new hospitals at Goodland, Oberlin, Colby, Norton and Quinter, perhaps within the next year.

Respectfully submitted,

M. J. Renner, M.D., *Councilor.*

TENTH DISTRICT

To the House of Delegates:

Your councilor of the Tenth District is glad to report several new and younger men taking residence in this territory, making for a more equitable distribution of medical care.

We are planning a meeting of the men in this councilor district in the near future to consider (a) a matter of unified support to the Kansas Medical Society in its present litigation and defense against the osteopathic charges which have recently been brought and (b) the matter of support for the National Physicians' Committee as a group.

This councilor is beginning to wonder if so much time

is not going to be taken in defending our stand on certain ethical issues that none of us will be able to practice medicine.

The refresher courses and traveling short courses, made possible through our central office, have been well received and well attended in this district. I think we can definitely say that the quality of medicine in the Tenth District is looking up.

A recent establishment of a Cancer Diagnostic Clinic at Hays has resulted in a great increase in interest in this branch of medicine and all meetings are well attended.

We anticipate a good attendance from this district at our state society meeting in May.

Respectfully submitted,

Murray C. Eddy, M.D., *Councilor.*

ELEVENTH DISTRICT

To the House of Delegates:

Nothing sensational has taken place in the Eleventh District during the past year.

We have held no district meetings during the past year, but Barton and Pratt Counties have had regular meetings with scientific programs.

The need for more hospital facilities has been felt throughout the district the past year. Pratt will get a new county hospital during the next year. New hospitals are under consideration at St. John, Greensburg and Kinsley. Great Bend has added a new wing to its hospital.

The medical personnel in the Eleventh District has remained about the same. Three new physicians have taken up practice in this district since our last report.

Dr. A. D. Updegraff of Greensburg has retired to his ranch in Barber County and is enjoying ranch life very much.

Respectfully submitted,

J. R. Campbell, M.D., *Councilor.*

TWELFTH DISTRICT

To the House of Delegates:

The Twelfth District councilor has had two meetings during the past year which were not well attended. About the only unusual activity has been an attempt to form a public health district of several counties with hopes of getting a full time health service. This has been delayed for the time being because additional effort is being made in establishing industries to utilize natural gas from this area. At present this has not added to the load of the medical society in this community but it will in the future.

We now have doctors in every county seat town in this district and they are all young men with good qualifications. The medical situation looks the best it has in the past 25 years.

Respectfully submitted,

G. R. Hastings, M.D., *Councilor.*

Kansas Physicians' Service

To the House of Delegates:

Blue Shield enrollment during the fiscal year 1947 increased from 14,558 to 53,204 at the end of the year. This figure will approximate 75,000 by the date of the annual meeting. Thirty per cent of the subscribers are in rural groups. Kansas being essentially agricultural, the program the past year has stressed community-wide enrollment, usually consisting of groups selected geographically from entire counties. In a few instances these have been on a city-wide basis.

Thirty-four community-wide programs have been completed over various portions of the state and the executive committee has directed that the experience in these areas now be observed and studied before further experimental enrollment on this basis be undertaken. The method is not proven to be actuarially sound on a large scale, so utilization and loss ratios must be determined before too extensive a risk load is assumed.

During the year the earned income totalled $282,941.81. A total of $195,510.30 was paid to physicians for services rendered to subscriber members. Operating expense was $51,446.25, leaving $35,985.56 added to the reserve. The reserve on December 31 was $50,567.39. Most of this is invested in government bonds. Operating expense included $21,407.85, the enrollment cost.

Kansas physicians have shown a splendid spirit of cooperation as our plan has developed. The doctors show realization that this is our program, presented as our answer to the public need and demand for a method to aid the people to meet the economic problems of medical care. It is in studying the fundamental principles of the plan, keeping informed of its application in practice and its progress, then helping patients to understand how the plan works to their best interests that participating physicians have been of most valuable aid.

This understanding and co-operation have been greatly enhanced by the activities of Dr. Edward M. Fitzgerald, who joined the staff as full time medical director. Much of his time is spent over the state calling on physicians and assisting in the solution of their Blue Shield problems. Dr. Fitzgerald also has contributed efficiency and effective operation of claims analysis and approval. This work requires the understanding of one from the medical profession and becomes an increasingly large task with plan growth.

Physicians are learning to apply the limitations and restrictions of the contract. Explanation to the patient is particularly necessary in the matter of the waiting period. The family physician is best able to point out that it is financially impossible to commence furnishing expensive care for pre-existing conditions immediately or soon after enrollment. Physician co-operation is most helpful here.

A joint Blue Shield-Blue Cross committee headed by Dr. W. F. Bernstorf is studying the problem of inter-plan relationship and preparing recommendations for further correlation of the medical plan and the hospital plan. Increased efficiency and effectiveness will result from the integration of the two executive committees and the boards of trustees, so each plan will better understand the workings and problems of the other. This will result in better meeting the public needs and firm sound growth to offset the ever-present threat of socialization of medical and hospital practice.

Respectfully submitted,

Barrett A. Nelson, M.D., *President.*

Committee Reports

ALLIED GROUPS

O. W. Davidson, Chr., Kansas City; T. P. Butcher, Emporia; R. D. Dickson, Topeka; L. B. Gloyne, Kansas City; J. A. Griffith, Iola, A. E. Hiebert, Wichita; D. A. Kendall, Great Bend; J. B. Ungles, Satanta.

To the House of Delegates:

This committee has undertaken during the past year to bring about an improvement in relations between various groups interested in problems that concern the medical society.

We have made some headway and have had a very fine response from some areas. During the coming months the results of such efforts will be made evident.

It is hoped that the medical men, in every locality, will do everything possible to stimulate closer harmony in their communities among these groups.

One member of the committee appeared before the pharmacists of the state and consulted with them on joint problems between members of their organization and members of the medical profession. This is only one example of ways in which working relationships can be cemented for the advantage of all groups concerned.

Plans have been made for subdivisions of the committee to handle requests for joint meetings with such groups as the nurses, the dentists, the pharmacists, and so forth.

It is stimulating to realize that these groups feel free to seek assistance from our organization. Their problems, which they bring to us, merit serious consideration.

Respectfully submitted,

O. W. Davidson, M.D., *Chairman.*

ANESTHESIOLOGY

P. H. Lorhan, Chr., Kansas City; C. D. Bell, Pittsburg; L. L. Bresette, Kansas City; H. J. Brown, Winfield; H. H. Hyndman, Wichita; R. S. McKee, Leavenworth; C. D. McKeown, Wichita; H. F. Spencer, Emporia; F. C. Taggart, Topeka.

To the House of Delegates:

This committee had frequent meetings during the year and begs to report the following accomplishments.

Through the efforts of this committee the Kansas Section of the American Society of Anesthesiology was formed. A constitution was written and adopted and temporary officers have been installed. The first formal meeting will be held in May at the time of the annual session of the Kansas Medical Society, to which all members interested in anesthesiology are invited.

The committee has had a continued interest in graduate education for physicians doing anesthesiology. Throughout the year scientific meetings have been held in connection with the University of Kansas School of Medicine and with the Kansas City Society of Anesthesiology. A scientific speaker has been invited to appear before the general assembly of the coming meeting of the Kansas Medical Society. The committee has outlined a refresher course, and each member of the committee is prepared to assist any physician desiring clinical experience in anesthesiology. The length of time is arranged to suit the convenience of the physician desiring this experience. Arrangements for such work may be made by writing any member of the committee.

Among the projects begun but not yet completed is a statewide study investigating the causes of deaths that occur within 24 hours following surgery to determine ways in which the general practice of anesthesiology in Kansas might be improved. The committee is also attempting to standardize fee schedules for anesthesiologists for each of the various organizations or agencies requiring such services.

A major accomplishment was a project assigned to this committee by the president, to work out a recommended blood program for the state of Kansas. A subcommittee prepared an outline which was approved by the committee and subsequently by the Council of the Society. Copies of the outline were then mailed to the secretaries of all component societies. The program recommended is similar to the plan in operation in Sedgwick County, except that a state advisory council to coordinate the various county-wide programs has been recommended. Obviously, the mechanics of operating a blood program in smaller counties need not be as elaborate as the set-up in Wichita. The fundamentals, however, are the same in that the Red Cross provides the publicity, which must first be approved by the county medical society, and supplies donors. The Red Cross county chapter employs a medical director who is under the supervision of his county society and has control of all medical phases of the program. Where blood is to be processed, individual arrangements meeting the approval of the medical society and the Red Cross chapter should be made. In general, this project was developed to assist the medical profession in planning for a blood program. It is certainly not intended that these recommendations must be followed. They are presented to serve as a guide, and whenever improvements or variations of the original outline have been adopted the committee would appreciate hearing of them so that its own recommended program may continue to be improved.

Respectfully submitted,

P. H. Lorhan, M.D., *Chairman.*

AUXILIARY

C. O. West, Chr., Kansas City; W. M. Brewer, Hays; H. O. Bullock, Independence; J. R. Campbell, Pratt; H. A. Hope, Hunter; L. J. Schaefer, Salina; R. W. Urie, Parsons.

To the House of Delegates:

The Woman's Auxiliary to the Kansas Medical Society has been very active during the past year under the splendid leadership of Mrs. F. C. Beelman.

They planned two major projects last May to be stressed most during the coming year, as follows:

1. To extend their program of Health Education to a greater group of lay individuals in the state. During the year many Health Education teas were held and a large number of lay individuals were contacted by organized medicine through this medium.

2. To assist the program of Nurse Recruitment. Some of the county organizations have held Nurse Recruitment teas and through this contact a number of young women have become interested in nursing as a profession.

The Hygeia subscription record has been very encouraging. This fine magazine has been placed in many schools during the year.

"The Auxiliary News," a new monthly publication during the past year, has proved its worth and should be continued. The editors are to be congratulated on the fine work they have done during the year.

The Auxiliary Advisory Committee chairman has visited and spoken to some of the Auxiliaries during the past year.

Respectfully submitted,

C. Omer West, M.D., *Chairman.*

CHILD WELFARE

B. I. Krehbiel, Chr., Topeka; M. S. Boyden, Lawrence; D. R. Davis, Emporia; T. C. Hurst, Wichita; Fred Mayes, Topeka; E. G. Padfield, Salina; L. N. Speer, Kansas City; J. A. Wheeler, Newton.

To the House of Delegates:

Your Committee on Child Welfare in a formal meeting outlined a program for the year. This program has been submitted to the Council of the Kansas Medical Society where it was approved. Some of the programs herein outlined have been implemented but since this report is due prior to the close of the fiscal year, and another meeting is planned, it is expected that the remaining portions of this outline will be placed into action by the time the House of Delegates receives this report.

The committee is informed that 5,000 births occur in Kansas each year, and in an effort to foster an improved program of immunization, etc., has made a series of recommendations to the State Board of Health. The first of these is that the State Board of Health send a notice with the birth certificate to all mothers, stressing the value of immunizations and an average schedule, announcing the ages at which immunizations might be given. The second is that the Kansas State Board of Health, through its Division of Child Welfare, contact the hospitals of this state, advising them that any mother wishing the booklet entitled "Infant Care" may obtain this upon request through the State Board of Health. The third has to do with a publication on mental health for children already being distributed by the State Board of Health in Louisiana. This was studied by your committee and may be purchased in quantities for distribution in Kansas. The material in these pamphlets has also been studied by the Committee on Mental Health and approved for publication. Your committee now awaits action by the State Board of Health, after which the project will be carried out. The pamphlet may be sent once each month for a year to all mothers, following the birth of their first child.

The second major problem to come before this committee had to do with the crippled children's work in this state. Your committee recommended to the Crippled Children's Commission that where the patient is eligible to benefits and the services rendered are generally performed by physicians other than orthopedists, payment for those services might be allowed and, secondly, the committee recommended the creation of a technical advisory commission for the Crippled Children's Commission. At the time this report is written, these regulations have not been completed. It is hoped that a supplemental report may be admitted before the House of Delegates at the time of its meeting, describing the further progress of this phase of your committee's activities.

Respectfully submitted,

B. I. Krehbiel, M.D., *Chairman.*

CONSERVATION OF EYESIGHT

W. M. Scales, Chr., Hutchinson; R. E. Cheney, Salina; G. F. Gsell, Wichita; H. L. Kirkpatrick, Topeka; L. A. Latimer, Alexander; C. J. Mullen, Kansas City; W. W. Reed, Topeka; D. P. Trimble, Emporia.

To the House of Delegates:

Your committee has held one meeting during the year. The session was well attended and a considerable amount of business was transacted.

It is natural perhaps that much of the business of this committee concerns the work of the Department of Services for the Blind under the Board of Social Welfare. The committee realizes that its recommendations are of an advisory nature only and therefore has no knowledge at present of the extent to which these recommendations will be carried out. Among the suggestions forwarded to the department are that physicians rendering services shall be licensed in Kansas and maintain an office in this state before they may be placed on the approved list, that before a patient shall be authorized to travel a considerable distance for care he shall be examined by the nearest approved ophthalmologist, and that a more nearly adequate rate be allowed hospitals to care for such patients.

The committee unanimously approved the reorganization of the Kansas E.E.N.T. section to make that body a more active organization with a year-round program. It was felt that physicians in this specialty should work more closely with physicians in general practice and in each of the other recognized specialties and that the vitalization of this section within the state Society could serve to accomplish such an objective.

The various fee schedules under which physicians of Kansas are currently operating were scrutinized and a subcommittee was appointed to prepare a report and recommendations to the House of Delegates at the time of the annual state meeting. The commitee also recommended to the State Board of Health that all cases of economic blindness be made reportable and that such statistics eventually be made available to this committee for further study.

Upon request of the State Board of Social Welfare for a recommendation for the position of state ophthalmologist for a two-year term of office, the committee unanimously approved the nomination of Dr. H. L. Kirkpatrick of Topeka.

Respectfully submitted,

W. M. Scales, M.D., *Chairman.*

CONSERVATION OF HEARING

J. N. Sherman, Chr., Chanute; E. J. Bribach, Atchison; J. D. Hunter, Fort Scott; P. A. Petitt, Paola; W. D. Pitman, Pratt; H. W. Powers, Topeka; C. T. Ralls, Winfield; Maurice J. Ryan, Kansas City; L. B. Spake, Kansas City.

To the House of Delegates:

Your chairman has corresponded with the members of the committee and, not obtaining suggestions for projects that were important enough to warrant early action, has not called a meeing of the committee. It is planned, however, to bring the committee together prior to the state meeting. If, as a result of this session, recommendations arise from the committee, these will be brought directly to the House of Delegates.

Respectfully submitted,

J. N. Sherman, M.D., *Chairman.*

CONSTITUTION AND RULES

A. W. Fegtly, Chr., Wichita; F. R. Croson, Clay Center; N. L. Francis, Wichita; H. E. Haskins, Kingman; W. M. Mills, Topeka.

To the House of Delegates:

The following amendments to the By-Laws are respectfully submitted with the intent to improve the organization, clarify certain situations which have arisen, and facilitate the meetings of the House of Delegates. They must

be read at the first meeting of the House of Delegates and voted upon at their last meeting of this session.

1. Chapter IV—General Meetings and Sessions.

Sections 1, 2 and 5 shall be amended by substituting the words "Committee on Arrangements" for "Committee on Scientific Work" in each section.

2. Section 6 shall be amended to read: "A definite time and place shall be designated on the program for the annual address of the president."

3. Section 9 shall be amended to read: "Every paper read before this Society desired by the Editorial Board for publication in the Journal shall be deposited with the secretary as soon as possible after its presentation."

4. Chapter V—House of Delegates.

Section 17, as amended May 11, 1944, shall be amended to read as follows: "Representatives to the House of Delegates of the American Medical Association shall be certified to the meetings of that body according to the Constitution and By-Laws of that association and shall be selected as follows: one-half the number of delegates permitted this Society for two-year terms of office shall be selected annually as delegates-elect whose term of office shall begin at the annual session of the American Medical Association the year succeeding their election.

"Alternate or alternates shall be elected each year for two-year terms who may be certified to substitute for any delegate unable to attend an annual or interim session during his term of office.

"No member may be elected to serve more than three consecutive two-year terms as delegate to the American Medical Association."

5. Chapter VI—Election of Officers.

Section 1 shall be amended to read: "The election of officers shall be held at the last meeting of the House of Delegates at each annual session."

6. Section 2 shall be amended to read: "During the first meeting of the House of Delegates at each annual session, the president shall order a caucus of all members of the House in each councilor district to be held, for the purpose of selecting a single member of the House from that district as a candidate for a Nominating Committee. Immediately after the caucuses the names of the twelve candidates shall be announced. Ballots bearing the names of the twelve candidates shall be prepared and, at the last meeting of the House of Delegates at each annual session, each member of the House shall cast his vote for five.

"The president and secretary of the Society shall serve as tellers at the conclusion of the session. The member receiving the largest number of votes shall be the chairman. In case of tie on the first and/or the fifth places, the president shall cast a single vote to determine the issue. ONLY the five elected as members of the Nominating Committee shall be notified by mail of their election. Ballots shall be preserved in a sealed envelope at the executive office until the annual session of the following year, at which time they shall be offered to the House of Delegates for review, if requested by any member."

Section 3 shall be amended to read: "The Nominating Committee shall meet in EXECUTIVE SESSION at such time or times as considered advisable by the chairman, and shall prepare a list of two or more candidates for each office, to wit: president-elect, vice president, second vice president, secretary, treasurer, delegate-elect to the American Medical Association, and alternate or alternates to the same."

Section 4 shall be added to read as follows: "The Nominating Committee shall file a report, signed by each member, to be read at the first meeting of the House of Delegates of the annual session after their election. From this report ballots shall be prepared with the names of the suggested candidates together with blank spaces for any additional nominations to be made from the floor."

Section 5 shall be added to read as follows: "At the time scheduled for election of officers during the last meeting of the House of Delegates of each annual session, the president shall call for any additional nominations from the floor for each office. Ballots shall be passed out and a secret vote taken. A majority of votes cast for each office shall be necessary to elect. If on any ballot no nominee shall receive a majority, the name receiving the smallest number of votes shall be dropped, and balloting will continue until a majority is obtained."

7. Section 6 shall be added to read as follows: "Any member known to have solicited votes for himself, or to have otherwise sought any office within the gift of the Society, shall be ineligible for any office for two years. Any nominee not in attendance at the annual session and not a member of the Society for at least the two preceding years shall be ineligible (Constitution Article X, Section 4)."

8. Chapter VIII—The Council.

Section 11 shall be amended to read: "In the event of death, resignation, or removal in the office of the second vice president, secretary, treasurer, or a councilor, the Council shall elect a successor to complete the term of office. When a councilor is so chosen for more than one-half the regular term of office, it shall be considered as a full term and he shall be eligible for re-election for only one term thereafter."

9. Chapter IX—Defense Board.

Section 1 shall be amended to read: "Members of the Kansas Medical Society are urged to carry individual professional insurance with commercial companies as these usually include possible indemnity in their policies, but additional assistance of the Society Defense Counsel may be provided if necessary or desired.

"It shall be the duties of the members of the Defense Board, severally or collectively, to investigate all claims of malpractice made against members desiring Society assistance; to assist in conducting the defense, and to pay the Society defense attorney his fee and expenses from funds of this Society within their control, but they shall not pay or obligate this Society to pay any court costs or judgments rendered against any member in the final determination of any case, nor shall they be obligated, without affirmative action, to pay the fees of any local attorney employed by the member. The Defense Board shall be empowered to contract with agents or attorneys as it deems necessary, in so far as the amounts to be expended thereby are approved, or do not exceed the amount of the annual budget for defense purposes."

10. Section 2 shall be amended to read: "Defense assistance shall be available only to an active member of this Society, and only in civil claims or suits alleging malpractice based on professional services rendered in the practice of his profession, within the State of Kansas or adjoining states, during the time he was a paid-up member of this Society, and only in civil claims or suits instituted in the courts of the State of Kansas, and/or adjoining states, or Federal Courts in the State of Kansas. There shall be no exception unless recommended by the Defense Board.

"The councilor of the district in which the member asking defense assistance resides shall be an ex-officio member of the Defense Board when acting on that specific case."

11. Section 3 shall be amended to read: "It shall be the duty of any member of this Society threatened with a suit or suits for malpractice desiring Society defense assistance, to immediately notify the president of the component society of which he is a member, who shall at once request the executive secretary or the chairman of the Defense Board to forward a defense application for completion. On receipt of this blank properly executed and with full information the president of that component society shall immediately appoint a committee of which the councilor of the district shall be a member and preferably the chairman. This committee shall proceed without delay to investigate the charge made against such member."

12. Section 4 shall be amended to read: "The local committee shall consult with the defendant, and if necessary his witnesses, and if the committee shall agree that the case should be defended it shall so report to the chairman of the Defense Board. If this committee shall decide that it is not a case to be defended, the defendant may appeal directly to the Defense Board which shall in all cases have the final decision as to whether or not Society Defense assistance shall be rendered. The findings of the committee and/or Defense Board, if unfavorable, are to be communicated only to the member applying for defense assistance."

13. Section 5 shall be amended to read: "Investigations of the committee and of the Defense Board shall be conducted without unnecessary delay and decisions rendered whether or not a suit is a proper case for defense assistance. When defense assistance is undertaken, the defendant shall be obligated to inform the committee and/or the Defense Board of any new developments affecting the status of the case in question, and the Defense Board or its attorney shall report to the defendant from time to time the progress of legal action. The member sued or threatened with suit shall be privileged to withdraw his request for Society defense assistance at any time prior to trial."

14. Chapter X—Editorial Board.

Section 4 shall be deleted since the subject is already covered in Chapter VII, Section 7, and the following sections numbered consecutively.

15. Chapter XI—Committees.

Section 1. The Committee on Scientific Work shall be dropped from the roll of standing committees.

Section 25. The work of this committee shall be deleted and succeeding committees numbered consecutively.

16. Chapter XI—Committees.

Section 3, as amended in 1944. Paragraph 2 shall be amended to read: "The special reference committee shall meet prior to the first meeting of the House of Delegates to enable it to make preliminary report to the first meeting of that body. Their work shall be to study the reports of standing committees, special committees, councilors, and any other reports referred to it by the president, as well as all resolutions sent in prior to the first meeting of the House of Delegates for consideration of that body. In their preliminary report they may at their discretion submit any or all reports for acceptance or adoption by the House of Delegates briefly BY TITLE AS PRINTED IN THE JOURNAL, except that recommendations of any committee or councilor requiring or requesting specific action or policy of the state Society shall be presented in detail.

"They shall hold subsequent meeting or meetings between the sessions of the House of Delegates for the consideration of all resolutions presented to the House and for hearings on the various suggestions or recommendations requiring specific action or policy of the state Society, and shall make final report with recommendations thereon to the last meeting of the House of Delegates before final or definite action is taken."

17. Section 7 shall be amended to read: "The Committee on Arrangements shall be appointed by the component society of the county in which the annual session is to be held, and shall consist of as many sub-committees as may be desired. It shall be the duty of this committee to provide suitable accommodations for the meeting places of this Society, the Council, the House of Delegates and their respective committees. It shall prepare and arrange for diversified scientific programs subject to the approval of the Executive Committee and shall have general charge of all the annual session arrangements, in co-operation with the executive secretary. Its chairman shall report an outline of the arrangements and program to the executive secretary for publication in the annual session program, and shall make additional announcements concerning the session as occasion may require."

18. Section 14 shall be amended to read: "The Committee on Credentials shall be composed of the secretary, the sergeant-at-arms appointed by the president, and one other member. It shall be the duty of this committee to approve or reject credentials for admission or representation at meetings of this Society or the House of Delegates. It shall arrange for registration of members at each annual or special session of the Society and each session of the House of Delegates."

19. Section 21 shall be amended by the addition of the following paragraph: "It shall also further scientific activities of this Society such as refresher and postgraduate courses."

20. Chapter XII—Component Societies.

Section 11 shall be amended to read: "No physician may hold ACTIVE membership in two component societies at the same time and no physician may be an ACTIVE member of a component society without becoming a member of this Society."

21. Section 16 shall be amended to read: "Physicians residing in counties where no component county society exists or residing in two or more adjoining counties in which the number of practicing physicians desiring affliation with the Kansas Medical Society is too limited to assure successful and beneficial meetings, may form joint county or district societies whose principles, constitution, and by-laws are recognized and approved by the Council, and by virtue of such membership may be accepted as members of this Society.

"Where component societies have already been chartered by this Society, original charters must be surrendered if so ordered by a MAJORITY VOTE of the MEMBERSHIP of such component society, and a new charter requested, with certification of individual membership by the proper officials of the component societies surrendering their charters. State Society membership dues or assessments shall be paid through the newly formed component society."

Respectfully submitted,

A. W. Fegtly, M.D., *Chairman.*

CONTROL OF CANCER

H. E. Snyder, Chr., Winfield; L. G. Allen, Kansas City; J. P. Berger, Wichita; H. O. Bullock, Independence; H. C. Clark, Wichita; O. R. Clark, Topeka; C. A. Hellwig, Wichita; C. H. Miller, Parsons; H. F. O'Donnell, Wichita; R. H. Riedel, Topeka; G. M. Tice, Kansas City; K. E. Voldeng, Wellington.

To the House of Delegates:

Last year the Committee on Control of Cancer, in its

"...pressure of the gravid uterus mechanically interferes..."

in pregnancy

"Constipation is the rule. The pressure of the gravid uterus mechanically interferes with the function of the small intestine and colon per se and also renders the act of defecation less efficient by its effect on the diaphragm, abdominal muscles and levator ani."

—Bockus, H. L.: Gastro-Enterology, Philadelphia, W. B. Saunders Company, 1946, vol. 3, p. 999.

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annual report, asked for the full cooperation of the members of the Kansas Medical Society in the program of cancer control planned for the year. In this report, the Committee wishes to thank the profession for its cooperation in this program and for the success which has been achieved.

Since the program for the development of tumor diagnostic clinics in Kansas hospitals was launched in January of 1947, 19 such tumor diagnostic clinics have been established in Kansas hospitals which have met the minimum standards set by the Committee on Control of Cancer. Three of these tumor diagnostic clinics have already met the approval of the American College of Surgeons for cancer clinics having facilities for both diagnosis and treatment. These are in addition to the two which were already recognized by the College. It is most likely that the majority of the remainder may secure the approval of the American College of Surgeons after they have applied for survey, and the survey has been made. Each of these tumor diagnostic clinics in Kansas has received $500 from the Kansas Division of the American Cancer Society to help defray expenses of the first year of operation. The Cancer Society has asked your committee to make a survey of the tumor diagnostic clinics that have been established and proposes to pay an additional $500 at the end of the first year's operation in each of these clinics if the survey reveals that the work is being properly carried out.

It is hoped to publish a list of all these clinics soon, along with the dates and hours of their meetings so that the profession may be better able to utilize these clinics for the referral of diagnostic and treatment problems.

Dr. Robert H. Riedel, director of the Division of Cancer Control of the State Board of Health, has been most successful in his organization of a cancer registry. There are now 43 participating hospitals in this registry. Participation in the registry is a requirement for approved tumor diagnostic clinics, but Dr. Riedel has been able to establish cancer registries in many hospitals in which tumor diagnostic clinics have not been established. Hospitals participating in the cancer registry have received money to defray the clerical expenses incidental to this activity. Approximately $22,000 has been or will have been paid to participating hospitals by the Board of Health in the current fiscal year. Of this $22,000, one-half has come from funds provided by the Kansas Division of the American Cancer Society.

There have been no new cancer detection clinics established in the state in the past year. The one at Lawrence, Kansas, is now our only detection clinic. It must be emphasized again that detection clinics are advocated solely for the examination of patients without symptoms who are seeking periodic health examination. In a program financed by the Kansas Division of the American Cancer Society, your committee prepared a physical examination blank to be used in such periodic health examinations and these blanks were printed and distributed to each member of the Kansas Medical Society early last year. To date, these blanks have not been advertised to the public. The committee has been disappointed in the small number that have been completed and sent in to the Kansas Division of the American Cancer Society. It is felt that the seemingly poor response is not a fault on the part of the doctor, but rather a fault in that patients do not ask for a cancer detection examination following the form provided by the Cancer Society. Proper publicity for this blank should result in larger numbers seeking periodical health examinations. It is hoped that members of the Society will utilize this blank in conducting such examinations. Further, that on completion of the examination, the top of the blank containing the patient's name and identifying data will be torn off and kept in the doctor's files and the completed form below sent in to the Kansas Division of the American Cancer Society, New England Building, Topeka, Kansas. These blanks will furnish evidence that a program of cancer detection in the doctor's office can be a successful one and can best serve to meet the needs of the total population of an area.

There has been considerable expansion of the facilities for the treatment of cancer in the past year. Grants of approximately $5,000 each have gone out to six Kansas hospitals from the Kansas Division of the American Cancer Society for the purpose of assisting in the payment for radium or x-ray treatment machines. There are still some areas in the state which the committee feels should have improved facilities for the treatment of cancer. It is hoped that these areas, which were contacted by the committee a year ago, will soon be able to organize cancer treatment centers.

The program of professional education has been enlarged in the past year. Members of the Society have been receiving at intervals of two weeks, copies of the Kansas Cancer Bulletin which has been paid for and distributed by the Cancer Society. The Cancer Page in the Journal has been continued and will be continued this following year. A very successful Refresher Course on Cancer and Radiology was sponsored by the Committee on Control of Cancer and the Committee on Graduate Study of the Kansas Medical Society, the State Board of Health and the Extension Division of the University of Kansas. Well over 100 docors attended this Refresher Course at the University of Kansas Medical Center. The bulk of the expenses of this course were defrayed by the Kansas Division of the American Cancer Society.

The circuit postgraduate course on cancer was presented in Wichita, Hays, Topeka, Emporia, and Pittsburg between March 19 and March 24. The faculty for this course consisted of three nationally known doctors. A good part of the expense of this course was borne by the Kansas Division of the American Cancer Society.

The exhibit on Cancer of the Colon and Rectum, prepared for use in county medical society meetings by Dr. Karl Voldeng and his sub-committee, has been shown and the program accompanying it presented in a number of county medical societies. This is a very fine exhibit and has gained approval wherever it has been shown. This program should be presented in the majority of our county societies within the next year. Transportation of the exhibit and facilities for projection of the motion pictures accompanying it are provided by the Kansas Division of the American Cancer Society which has, likewise, financed the preparation of the exhbit. Dr. Voldeng is now in the process of preparing another exhibit for use in county society meetings which will be available at a later date.

The Committee on Control of Cancer has continued to cooperate in the fullest with all elements of the Kansas Division of the American Cancer Society. The program of lay education sponsored by this organization is one of the most important parts of the program of cancer control. All physicians are urged to lend every possible assistance to the women and others of this organization. The extensive program of your committee relating to the development of clinics and all the features of professional education would not be possible without the financial assistance which the Cancer Society has provided. It has contributed financially to many projects not mentioned in this report,

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not the least of which is an $18,000 grant to the University of Kansas to aid in the development of its newly formed Department of Oncology. The program of the Cancer Society in Kansas has developed with the guidance and counsel of the members of your Committee on Control of Cancer and other members of the Kansas Medical Society. The good work of Dr. C. C. Nesselrode, the president of the Kansas Division of the American Cancer Society, should again be called to your attention. Likewise, the work of Dr. L. S. Nelson, president of the Kansas Medical Society, in furthering the work of the Cancer Society and of the program of Cancer Control in Kansas is to be commended.

It is hoped that in the next year there will be an even larger contribution from even more areas in the state to this program of cancer control which has been developed to fit the needs of Kansas citizens and Kansas physicians. It is our best defense against the invasion of socialized medicine in this particular field.

Respectfully submitted,

Howard E. Snyder, M.D., *Chairman.*

CONTROL OF TUBERCULOSIS

G. B. Athy, Chr., Columbus; A. L. Ashmore, Wichita; R. M. Carr, Junction City; S. L. Cox, Topeka; P. V. Joliet, Topeka; H. P. Palmer, Scott City; P. W. Schafer, Kansas City; C. F. Taylor, Norton; F. A. Trump, Ottawa; C. J. W. Wilen, Manhattan.

To the House of Delegates:

Bad weather and conflicts with other meetings forced this committee to cancel its two attempts to have a meeting during the past year. The committee will be called together prior to the state meeting, however, and will make a report to the House of Delegates in May.

Respectfully submitted,

G. B. Athy, M.D., *Chairman.*

ENDOWMENT

W. M. Mills, Chr.; Topeka; O. W. Davidson, Kansas City; J. H. A. Peck, St. Francis.

To the House of Delegates:

The Committee on Endowment has had some correspondence and discussion between its three members, and we realize from a practical standpoint that we have no funds and no authorization to raise funds. We have also discussed the use which could be made of an endowment fund, and these suggestions have been made.

The income might be used:

1. To endow a scholarship.
2. To furnish special lectureships at the medical school.
3. As awards for outstanding Kansas doctors.

The latter project has been very successful in Minnesota and has created a great deal of interest. Dr. Davidson feels that the special assessment which has been made will prevent an allocation of funds for this committee. Dr. Peck and the chairman feel that the financial award for outstanding Kansas doctors should receive favorable attention.

Respectfully submitted,

W. M. Mills, M.D., *Chairman.*

EXPERT TESTIMONY

C. E. Joss, Chr., Topeka; E. J. Frost, Wichita; J. L. Lattimore, Topeka; J. W. Spearing, Columbus; E. M. Sutton, Salina.

To the House of Delegates:

This committee was created by the Society for the express purpose of assisting jurists of Kansas at such times as they might request. The fact that no occasion has called this committee together during the past year is interpreted as being an indication of a wholesome condition which, it is sincerely hoped, will continue through the years to come.

Respectfully submitted,

C. E. Joss, M.D., *Chairman.*

HOSPITAL SURVEY

J. L. Grove, Chr., Newton; F. C. Beelman, Topeka; W. P. Callahan, Wichita; A. R. Hatcher, Wellington; R. G. Klein, Dodge City; O. W. Longwood, Stafford; J. H. A. Peck, St. Francis; M. G. Sloo, Topeka.

To the House of Delegates:

Although federal and state legislation requires hospital planning to be determined by officially appointed boards, the Committee on Hospital Survey has been consulted on all major issues and the advice of this committee has been followed. The actual regulations affecting hospital development in Kansas, for all practical purposes, are beyond the control of a committee appointed by the Medical Society.

The committee has studied the hospital survey recently completed by the Kansas State Board of Health. This formidable undertaking required a year and included a vast amount of information about every hospital in the state. In a few instances changes were suggested, and these have been adopted by the Advisory Council.

Your committee approved the allotment of federal assistance as suggested by the Kansas State Board of Health. During the next five years Kansas expects a Federal grant of $4,667,250. Fifteen per cent of this allotment is designated for special teaching hospital facilities including tuberculosis and psychiatric hospitals, etc. The rest of the sum, or 85 per cent of the total grant, is set aside for assistance in general hospital construction.

Federal regulations with which Kansas must comply include the following. These grants must be one-third the total cost of hospital construction; two-thirds must be provided from funds other than the federal grant. A second federal requirement is that the state must be divided into three types of hospital areas. The boundaries may be arbitrary but must encircle a population of at least 100,000 persons and include within its area one or more hospitals fully approved by the American College of Surgeons for intern and resident training. Federal assistance for hospital construction in a base area can be offered only until that area has four and one-half beds per 1,000 population; after that figure has been reached, no federal assistance may be granted. In Kansas there are two base areas, Kansas City and Wichita.

The second is an intermediate hospital area. This is smaller than a base area but must have 25,000 residents or more and must have at least one hospital with 100-bed capacity or a hospital that can be enlarged to 100 beds. Such an area will be assisted with federal funds until it reaches four beds per 1,000 population, and not beyond.

All other areas in the state are to be designated as rural areas. They may be assisted through federal aid only up to the point where they have two and one-half beds per 1,000 population, and not beyond. It can be seen, therefore, that not every hospital requesting federal aid may be eligible.

The committee was invited to attend a meeting of the Hospital Advisory Council. This was an open forum to



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which representatives of more than 100 hospitals in Kansas came to present their requests for federal assistance. When totaled, these requests amounted to many times the total grant Kansas would receive, so a system of priorities was planned. The present priority basis is still tentative and subject to change. The list has not been released by the State Board of Health but undoubtedly will be when the state program has been completed.

Another important item of business has to do with the newly adopted law, House Bill No. 67, requiring hospitals in Kansas to be licensed. This also is a responsibility of an official agency in which your committee has been invited to participate. The hospital licensing board has completed a tentative outline listing the factors which shall be evaluated prior to giving licenses to hospitals. A point system has been worked out on which each hospital will be graded. Smaller hospitals may be qualified on a lower total than larger hospitals. As for example, hospitals having from four to 25 beds are required to make 300 points while hospitals with a capacity of from 151 to 300 beds must receive 600 or more points out of a total of 771. Included in the examination are such items as the building, organization, facilities, services, employees' facilities, etc. Under these main headings are items involving physical properties such as sidewalks, fire protection, ambulance entrances and many others. A rather wide range of points may be accumulated under the item entitled professional staff. This is worked out by a formula which may be illustrated by two examples. A hospital with .6 employees per occupied bed receives three points while 25 points will be given a hospital having 1.2 employees per occupied bed.

Presenting this program in more detail would require a prohibitive amount of space. Your committee has studied the outline and approves it generally. As in any other new program, details will be altered from time to time. Each hospital has been given a copy of the proposed rating system. Your committee strongly recommends that the medical staff devote one meeting to the study of these regulations and has the assurance of the licensing board that all suggestions for improving this formula will be appreciated.

As stated earlier, final responsibility for hospital planning during this year rested with official agencies. There has been close contact between these agencies and your committee, partly because some of the personnel served in both capacities and partly because the official agencies have always welcomed recommendations from this committee. It seems entirely possible, with the period of preliminary planning recently completed and actual hospital construction almost ready to begin, that during the coming years a Committee on Hospital Survey will have a much more vital role to play than was possible during this period.

Respectfully submitted,

John L. Grove, M.D., *Chairman.*

INDUSTRIAL MEDICINE

J. W. Spearing, Chr., Columbus; H. O. Anderson, Wichita; J. L. Beaver, Wichita; C. W. Hall, Hutchinson; J. G. Hughbanks, Independence; M. V. Laing, Kansas City; P. A. Lindquist, Kansas City; F. N. White, Russell.

To the House of Delegates:

A meeting of the Committee on Industrial Medicine was held at the Kansan Hotel in Topeka on Sunday, October 26, 1947. Present were Dr. J. W. Spearing, chairman, Dr. H. O. Anderson, Dr. C. W. Hall and Dr. F. N. White. Present also were Dr. V. M. Winkle, newly appointed director of the Division of Industrial Health of the State Board of Health, and Mr. Oliver E. Ebel.

The outline prepared by this committee in 1945 was discussed. It was moved by Dr. Hall, seconded by Dr. Anderson, that an attempt should be made to carry out this outline this coming year and that conferences be held as soon as possible with members of the Kansas Industrial Development Commission, with the C. I. O. and with the A. F. of L., separately. Motion carried. It is regretfully reported that our attempts, as well as previous attempts, to arrange conferences with the representatives of management and labor were entirely unsuccessful. The writer refuses to accept defeat and feels that the approach or presentation to such representatives was improper or inadequate.

Dr. Spearing prepared a tentative outline for discussion and that, together with the outline prepared by the Industrial Medicine Committee of 1945, formed the basis of the discussion for the remaining portion of the meeting. In general, the committee approved the following tentative outline for an industrial health program for Kansas.

A. Personal Health of Employees
   1. Preplacement examinations.
   2. Treatment for nonindustrial conditions.
      a. If disabling, refer to the family physician.
      b. If not disabling, treatment may be given in the area by the plant physician.
   3. Co-operation with safety department—this applies to everyone in the area, but especially to the plant physician. This also involves a study of the physical properties of the plant, sanitary provisions, etc.

B. Health education includes various items such as health habits, nutrition, prevention of disease, etc.

Further scientific exhibits on industrial medicine at our state convention were urged. Also, a speaker on industrial medicine at our state convention was asked.

The next major point of discussion was on the subject of how better co-operation could be obtained between the industrial physician and the company. The following five points were approved:

1. The organization of safety committee within the plant; talks by the plant physician to this committee.
2. The interest and need of the plant physician to familiarize himself with various plant equipment.
3. Plant physician should be familiar with the nomenclature used at the plant.
4. A close relationship between the personnel director and the plant physician.
5. Plant physician should be consulted as to the type of form used for physical examination.

Respectfully submitted,

J. W. Spearing, M.D., *Chairman.*

MATERNAL WELFARE

Porter Brown, Chr., Salina; L. A. Calkins, Kansas City; H. C. Clark, Wichita; P. R. Ensign, Topeka; C. O. Merideth, Jr., Emporia; H. S. O'Donnell, Ellsworth; R. E. Pfuetze, Topeka; T. J. Sims, Jr., Kansas City; R. A. West, Wichita.

To the House of Delegates:

It is my privilege to report to the Kansas Medical Society for your Committee on Maternal Welfare.

The committee has convened three times during the



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past year, once in Wichita and twice in Topeka, and several items of interest to physicians over the state were considered.

There were 44 maternal deaths in Kansas in 1947. The rate was 1.0 per thousand, which is .4 less than last year. The decreasing rate occurring with an increasing number of births is most gratifying but not good enough since there are at least three or four states which have done better.

In a study of the maternal deaths occurring in Kansas during 1947, the committee was of the opinion that 10 of a total of 44 might have been prevented had the woman had pre-natal care. An additional 10 had heart disease and nephritis and should not have become pregnant. There were 15 on which the information was insufficient, and two deaths occurring early in pregnancy resulted from septicemia following induced abortion.

The program which the Council endorsed to establish classes for mothers did not materialize because we were unable to secure a qualified teacher. It is hoped that we can find such a person for next year and proceed with the plan.

Our effort to make Mother's Day a Maternal Welfare day received favorable response from a large per cent of churches. Almost all denominations printed our material in their church papers and the ministers encouraged its consideration by using some of it in their sermons and by the use of items in church bulletins and on cards for distribution to the congregations. We plan a similar campaign this year and hope to make it more effective.

The Kansas Congress of Parents and Teachers has consented to use Maternal Welfare as one of its major projects for the coming year. The next issue of their journal will carry an article stating that at least 50 women are marked to die this year, that these women are now pregnant for their third or fourth child and all of them have children now in school. None of them are receiving prenatal care. Every member of the organization is urged to help us find these women, and we, in turn, promise to save at least half of them. If this can be accomplished, Kansas will then be the safest state in the union in which a baby can be born.

We should like, as a committee, to appeal to every member of the Kansas Medical Society to encourage the P.T.A. in this effort so that each potential mortality can be found while she is still living. If she is pointed out, we can count on each physician to respond quickly. If she is unable to pay for care, give her free service.

Respectfully submitted,

Porter Brown, M.D., *Chairman.*

MEDICAL ASSISTANTS

C. O. Merideth, Jr., Chr., Emporia; H. J. Davis, Topeka; D. E. Eckart, Abilene; E. E. Harvey, Salina; R. H. Maxwell, Wichita.

To the House of Delegates:

The Committee on Medical Assistants welcomes the opportunity of reporting on the assistants' organization. During the past year, membership in the group totaled 313 girls and women employed by doctors who are members of the Kansas Medical Society. These members, from 33 different towns, were affiliated with 28 county organizations, which in turn were affiliated with the state society. One new component society, that in Douglas county, was formed during the year.

This organization will hold its annual meeting at Wichita May 9 and 10, and more than 300 members are expected to attend. The program for their meeting, printed elsewhere in this issue of the Journal, gives indication of their interests, primarily ways in which they may be of more service to their employers. In October 73 members and 50 guests who were prospective members attended a one-day district meeting in Hutchinson.

Each county group forms its own plans for meetings, programs and projects, and most units meet regularly each month. Usually, a speaker addresses the group on some subject of practical value to assistants, although some meetings during the year are social and some combine business and social programs. The doctors who employ the assistants are often invited as guests to the different meetings.

The Kansas Medical Assistants' Society could not have attained its present status without the assistance of many doctors throughout the state. Your Committee on Medical Assistants requests your continued interest in and support of that group.

Respectfully submitted,

Clyde O. Meridith, Jr., M.D., *Chairman.*

MEDICAL ECONOMICS

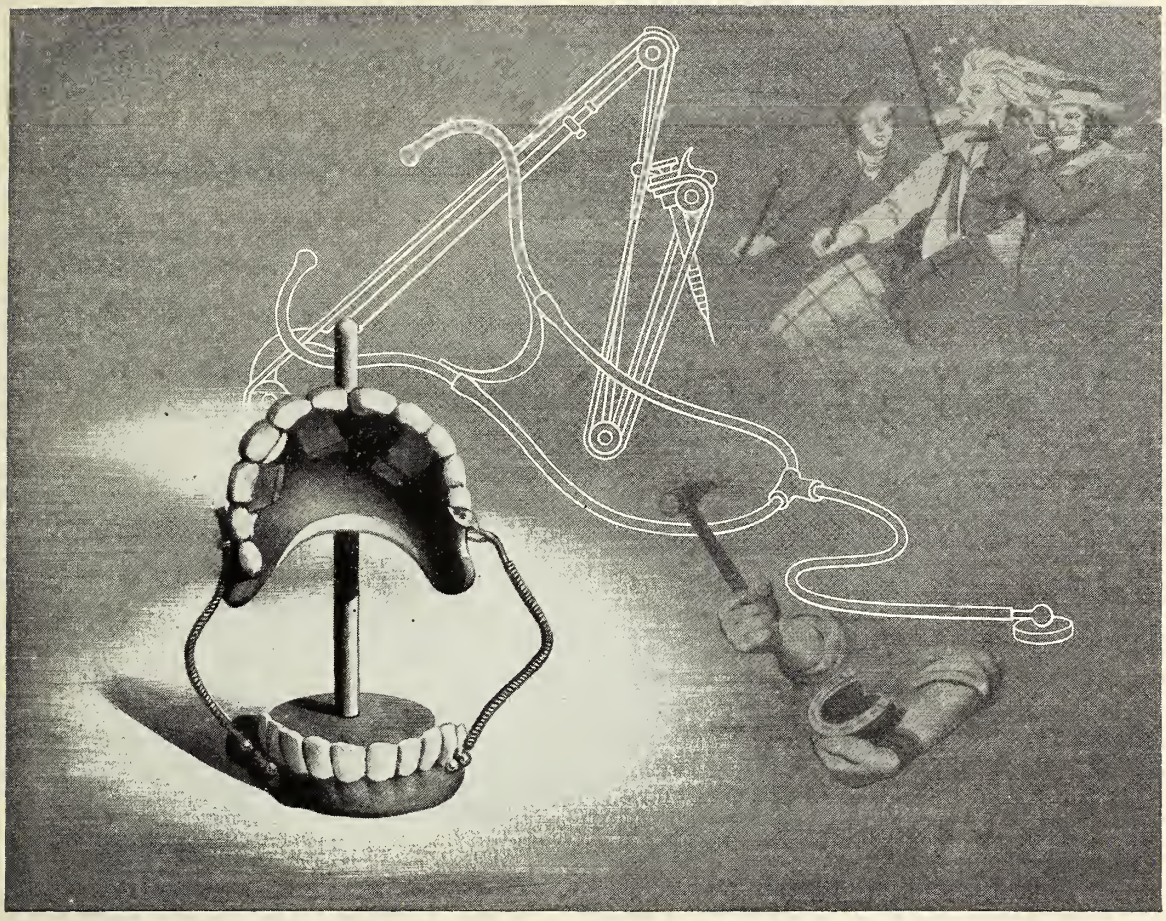
G. E. Kassebaum, Chr., El Dorado; A. C. Armitage, Hutchinson; F. C. Basham, Eureka; P. E. Conrad, Hiawatha; Thomas Dechairo, Westmoreland; R. E. Jordan, Osborne; J. H. Lathrop, Smith Center; G. D. Marshall, Colby; J. W. Randell, Marysville; R. Sohlberg, Jr., McPherson; H. L. Songer, Lincoln.

To the House of Delegates:

Two meetings of this committee have been held during the past year and a third is planned before the time of the state meeting. It is contemplated that a supplementary report will be made to the House of Delegates with reference to the indigent care program in Kansas. Material is not available at present and therefore cannot be included as part of this report.

The committee has been concerned with four major topics. The first has to do primarily with fee schedules. A survey of the various fee schedules in operation in Kansas has been made. It was noted that for the most part the schedules are considerably below the average fee charged private patients for similar work. Negotiations have been in progress throughout the year in an effort to raise some of the fee schedules. One such project has been successful. The Kansas Division of Vocational Rehabilitation has adopted the standard fee schedule as approved for work under the Veterans Administration and will employ medical care on that basis beginning July 1. Other agencies that have been contacted and have not yet adopted the fee schedule are the Workmen's Compensation Commission, the Railroad Retirement Board, the Kansas Crippled Children's Commission, etc. Your committee reports progress but wishes to remind the House of Delegates that such negotiations are usually lengthy.

The second major interest has been the financial aspects of the agreement between the Kansas Medical Society and the Veterans Administration. Although this program is carried by another committee, your Committee on Medical Economics assisted in negotiations for a new fee schedule. The schedule now in effect for this program has been approved by the Committee on Medical Economics and is currently being considered as the basis for ultimately preparing a standard uniform fee schedule for all governmental agencies with which the medical profession cooperates. Fee schedules from other states have been obtained and are being compared with that of the Veterans Administration. It is recommended that the next year's committee accept the responsibility of preparing a uniform fee schedule.



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Dentistry was only a "sideline" for goldsmiths, blacksmiths and strolling barbers until the French and American Revolutionary era. France demanded schooling for dentists in 1697; and Pierre Fauchard (1690-1761) soon reported systemic infection caused by teeth, used pivot teeth and crowns and made dentures complete with artificial gums.

Two favorite figures of the American Revolution symbolize the "before" and "after" of the *dental* revolution. Paul Revere was rendering dental services in addition to his smithing and engraving in 1773, while George Washington's dentures (illustrated above) were carved from a hippopotamus tusk by a full-time dental *specialist!*

But doctors still had no specialized *protection*. In 1794, in the first American malpractice case to be appealed, the defendant had no trained malpractice attorney to defend him and no malpractice insurance to pay his judgment.

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The third project concerns the program of indigent medical care. Your committee has met with the Board of Social Welfare and has been working on a recommended standardized program for this state. There are in effect at present at least four distinct plans for giving medical care to indigents, and within each there are numerous variations. In some counties the program is working harmoniously while in others considerable dissatisfaction is voiced. The Board of Social Welfare has been helpful and entirely co-operative. If present indications continue, your committee expects to have prepared a resolution on the subject at the time of the state meeting, which will be introduced to the House of Delegates as a supplementary report.

The fourth major consideration concerns Kansas Physicians' Service. The president of the Kansas Medical Society requested this committee to interest itself in the economics of Kansas Physicians' Service. The committee is willing to assist whenever requested but during this year at least has not been of much assistance in that regard. This is through no fault of Kansas Physicians' Service but is a result of a chain of circumstances which must first be adjusted before very much can be attempted by this committee. The committee has been informed of the major problems concerning Kansas Physicians' Service and on one occasion met with that board.

Respectfully submitted,

G. E. Kassebaum, M.D., *Chairman.*

MEDICAL SCHOOLS

Maurice Snyder, Chr., Salina; R. G. Ball, Manhattan; F. C. Beelman, Topeka; H. S. Blake, Topeka; J. A. Blount, Larned; L. E. Haughey, Concordia; H. H. Jones, Winfield; H. P. Jones, Lawrence; M. B. Miller, Topeka; E. L. Mills, Wichita; R. E. Speirs, Dodge City.

To the House of Delegates:

During the past year this committee has been actively engaged in working out a program of mutual benefit for the members of the Kansas Medical Society and the University of Kansas Medical Center. We have had three meetings, the last being a joint meeting with the chancellor of the University of Kansas, the dean and faculty of the medical school.

In addition, the chairman has, on three separate occasions, met with Chancellor Malott, the Administrative Committee of the Medical School, and the Board of Regents of the state of Kansas. Much of the work accomplished has, of necessity, been of a preliminary nature, the committee feeling that they should first concern themselves with an attempt to lay the background for a better spirit of cooperation and understanding between the Society and the school and, secondly, to learn first hand of the more important needs of the medical school. We believe much to this end has been accomplished and that many misunderstandings have been clarified. In general, the chancellor, the dean and faculty of the school expressed the desire for a closer relationship and a better understanding between the school and the practicing physicians of the state and are making plans to this effect. In turn, they will welcome any help that may be forthcoming from the Kansas Medical Society and are thankful for the increasing interest recently shown by the Society in the medical school.

Toward this end the Committee on Medical Schools offers three recommendations for consideration at this time, namely that:

1. A committee from the medical school be selected to join the Committee on Medical Schools of the Society in working out this problem.

2. The office of the dean of the medical school be set up as a separate full time position.

3. Definite recommendations be made to the council with reference to an adequate budget for the school of medicine, accompanied by the request that the council provide means for active support from representative physicians as needed to appear before legislative committees or in whatever other manner their services might be utilized toward the realization of the school's financial requirements.

Since the Committee on Medical Schools this year had the added responsibility of carrying on the postgraduate education program for Kansas, the chairman appointed Dr. Harold H. Jones of Winfield as chairman of the Subcommittee on Postgraduate Education.

From June 18, 1947, to February 17, 1948, 38 requests were handled with a total of $8,050. Questionnaires were sent out to the various members who had received benefits from the program and the material was analyzed. This data has been published in the Journal.

It is recommended to the House of Delegates that applications for benefits under this fund not be accepted after January 1, 1949, and that the House of Delegates be requested to make a policy with reference to eligibility for this fund and to determine the period after which education must have been completed.

As authorized by the House of Delegates, there was a dispensation of funds in the form of grants to six widows of members lost in military service to provide an appropriate remembrance from the Society.

The committee thanks those in charge of the work of the University of Kansas Graduate School for the many splendid courses they have offered to the physicians of the state. It is our opinion that a long term program be set up for continuation of this excellent form of postgraduate study.

Respectfully submitted,

Maurice Snyder, M.D., *Chairman.*

MENTAL HEALTH

E. D. Greenwood, Chr., Topeka; R. L. Drake, Wichita; T. L. Foster, Halstead; L. W. Hatton, Salina; C. C. Hawke, Winfield; J. A. Holmes, Lawrence; W. C. Menninger, Topeka; W. F. Roth, Jr., Kansas City.

To the House of Delegates:

With the consent of the Council the president appointed a special Committee on Mental Health a few months ago. The first meeting was held in February and a second is scheduled for the middle of April. Professional interest in this program may be illustrated by the fact that all but one member was present for the first committee meeting. The absent member was ill at the time. Moreover, this meeting was held during the week.

At the opening meeting plans were made for future work. Each member was enthusiastic about the program and expressed willingness to give time to the development of a sound mental health plan for this state. Your chairman respectfully requests the House of Delegates to give permission for the continuation of this work for another year.

The committee, by unanimous consent, offered its services in an advisory capacity to the Kansas State Board of Health and its mental health program. Similarly, the committee offered its services to the director of institutions of the Kansas State Board of Social Welfare.

Eight primary topics were suggested as possible fields of activity. These are recorded not primarily in the order in which the topics will be studied because some exploratory work will be necessary before their relative importance can be evaluated.

1. Educational programs, both lay and professional.

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2. Case finding.
3. A state registry of mental disease.
4. Institutional care, public and private.
5. Activities of the Division of Mental Hygiene of the State Board of Health.
6. Research.
7. Legislation.
8. Mental health facilities.

Three subcommittees were appointed and will report their activities at the time of the next meeting. They are: (1) commitment procedure; (2) mental health facilities; (3) scientific material for the medical profession in Kansas.

The committee has determined to assist all agencies and organizations interested in the field of mental health by coordinating their efforts. As rapidly as possible this committee will work with the various agencies in this field and assist them in outlining projects for their own consideration. The newly created Division of Mental Hygiene of the State Board of Health will do much toward carrying out this particular assignment.

Respectfully submitted,

E. D. Greenwood, M.D., *Chairman.*

NECROLOGY

C. S. Huffman, Chr., Columbus; J. D. Colt, Sr., Manhattan; J. A. McLaughlin, Greensburg; V. A. Vesper, Hill City; O. D. Walker, Salina.

To the House of Delegates:

We, your committee, submit the following list of members of the Kansas Medical Society whose deaths have been reported since the last meeting of the House of Delegates:

Name	*Age*	*Date 1947*	*Residence*
Dr. Mayer Shoyer	71	Apr. 5	Holton
Dr. Sanford Bailey	75	Apr. 28	Garden City
Dr. Leroy S. S. Ott	59	May 4	Longdale, Okla.
Dr. Otto B. Kiehl	67	May 10	Pittsburg
Dr. John D. Green	44	May 11	McPherson
Dr. Benjamin F. Mallory	76	June 3	Arlington
Dr. Thaddeus P. Martin	69	June 7	Topeka
Dr. Louis R. Haas	44	June 30	Pittsburg
Dr. Newton C. Speer	71	July 6	Kansas City
Dr. Leland C. Edmonds	45	July 9	Horton
Dr. Frederick E. Vest	88	Aug. 4	Topeka
Dr. Victor C. Eddy	85	Aug. 9	Colby
Dr. Herbert D. Sterrett	69	Aug. 25	Hutchinson
Dr. Lee V. Hill	52	Sept. 13	Kansas City
Dr. James E. Wolfe	53	Sept. 14	Wichita
Dr. Adam H. Adamson	65	Oct. 21	Arcadia
Dr. Benjamin L. Phillips	66	Oct. 21	Paola
Dr. Arthur T. Revell	69	Oct. 25	Scammon
Dr. Charles A. Dieter	63	Oct. 26	Harper
Dr. Tarlton A. Hood	75	Nov. 3	Garnett
Dr. John H. Luke	47	Nov. 10	Kansas City
Dr. George W. Benitz	68	Nov. 15	Wathena
Dr. Fred C. Cave	71	Dec. 12	Oxford
Dr. Anthony W. Fairchild	69	Dec. 15	Osawatomie

Name	*Age*	*Date 1948*	*Residence*
Dr. Schuyler Nichols	72	Jan. 25	Herington
Dr. Samuel T. Millard	71	Feb. 6	Topeka
Dr. M. Jay Brown	89	Mar. 6	Salina
Dr. William Y. Herrick	77	Mar. 9	Wakeeney
Dr. Elmer J. Nodurfth	57	Apr. 2	Wichita
Dr. William J. Irby	54	Apr. 8	Benton

Respectfully submitted,

C. S. Huffman, M.D., *Chairman.*

PUBLIC HEALTH AND EDUCATION

D. D. Carr, Chr., Topeka; N. A. Burkett, Council Grove; C. C. Hunnicutt, Sabetha; O. C. McCandless, Marion; O. L. Martin, Salina; C. H. Munger, Emporia; M. J. Renner, Goodland; L. W. Reynolds, Hays; C. E. Robison, Hoisington; J. E. Wolfe, Wichita.

To the House of Delegates:

No matter requiring action by this committee came to the attention of the chairman during the past year, so no meeting of the committee was held.

Respectfully submitted,

D. D. Carr, M.D., *Chairman.*

RURAL HEALTH

C. M. Barnes, Chr., Seneca; S. A. Anderson, Clay Center; L. E. Beal, Fredonia; R. M. Daugherty, Meade; J. C. Dysart, Sterling; J. T. Fowler, Osawatomie; A. J. Horejsi, Ellsworth; H. M. Swaney, Goodland.

To the House of Delegates:

Your chairman will present as his report the statement he presented to the Committee on Rural Health Service of the American Medical Association at its meeting in Chicago in February.

The Kansas Rural Health Committee has made a thorough and, we hope, comprehensive study of the proceedings of the National Health Conference held in Chicago on February 7 and 8, 1947. The chairman of the committee was in attendance at this conference. At a meeting of the committee on April 29, 1947, at Seneca, Kansas, a few additional and original ideas were added to the program of improving rural health. No doubt we are now suffering from a medical maladjustment wherein we have too many "specialists" and not enough country physicians or general practitioners. Kansas is predominantly rural and she needs more general practitioners.

We feel that only the people who reside in a given rural area can know the problems of that area. Federalization of medical practice cannot solve the problems. Both the people and the physicians have a definite responsibility in improving rural health. To bring physicians to rural areas and to hold them there, the following resolutions should be carried out by the rural communities:

1. That they improve their community level of income through such means as the Farm Bureau assistance and 4-H Club activities. This improvement will enable rural people more nearly to pay a fee commensurate with the importance of the work performed for them by the physician. In the past, fees of the country doctor have been much lower than those of the city physician.

2. That they improve their environment by improving the schools, homes, churches and service organizations in the community. The environment should appeal to the physician.

3. That they improve the roads from farm to market, thereby making it possible for the individual physician to care for many more persons in the same length of time.

4. That they educate themselves on public health matters and maintain good preventive public health services. They should organize health councils and sponsor public health nurses for each county.

5. That they have local persons trained in first aid and home nursing technics.

6. That they build and supply hospital and health or medical center facilities. Persons should have a definite sense of civic responsibility in this regard. The people of a community may have to adopt a new sense of standards of the value of money and to realize the vastly great importance of hospitals to community life. In some instances,



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1. Arbesman, C. E. et al. Jl. of Allergy 17:275, Sept. 1946.
2. Fuchs, A. M. et al. Jl. of Allergy 18:385, Nov. 1947.
3. Feinberg, S. M. and Friedlaender, S. Am. J. Med. Sci. 213:58, Jan. 1947.

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assistance in the raising of funds for hospital building may be obtained through the proper agency of the state under the provisions of the Hill-Burton Act. However, because of the even greater need for hospitals in other states as compared with Kansas, it is quite likely that Kansas will receive comparatively little aid from the government under the provisions of the Hill-Burton Act.

7. That they participate in prepayment hospital and medical insurance plans as provided in Blue Cross and the Kansas Physicians' Service plans.

8. That they consult the local rural physician and whenever possible conserve his time by going to his office. In keeping with this same thought, the patient should learn how to be an intelligent one. He should learn how properly to choose a physician. He should know what to do about securing consultation with another physician when his confidence lags or when he becomes dissatisfied with his regular family physician.

9. That they, in some cases, subsidize young physicians willing to move into a needy rural area by supplying offices and equipment. Scholarships in the form of loans are used in several of our southern states to induce young men to study to become physicians. Such a loan may never require payment if the physician remains in that same state and practices medicine there.

To the physicians comprising the medical profession, it is the advice of the rural health committee:

1. That vocational talks on medicine and nursing be given regularly to high school students.

2. That medical schools particularly encourage and favor the application and enrollment of students from rural areas.

3. That medical students be "sold" on rural practice while still students. This can best be done by having successful and capable rural practitioners as associate members of the medical school staffs. These rural physicians should talk to the students on the subjects they are best qualified to discuss.

4. That medical students be taught to believe they have a duty and obligation to society and that in the early years of their practice they should go where humanity most greatly needs them, for a time at least.

5. That the medical profession require three to five years in general practice before resident training in a specialty is permitted.

6. That certification boards give credit for time spent in general practice.

7. That hospitals establish residencies in general practice.

8. That not only should students from rural areas be encouraged to study medicine, but also student externships in rural practice should be served between the sophomore and junior and the junior and senior years of medical school participation.

9. That the rural practitioner be kept informed on advances in medical science by contact with other medical men at county medical society meetings and by short refresher courses held in the rural districts or at medical education centers.

10. That members of county medical societies be aggressive and assume leadership in health education of the people in the rural areas.

11. That physicians in the rural areas welcome and encourage the new and younger physicians to become members of general practice in the community, instead of discouraging them and holding grudges when the new and younger physician is the best life insurance policy for the older, and almost always overworked, rural physician.

12. That rural physicians cooperate in securing general practitioners for towns and areas where there is no physician at all or where mere cultists are the sole healers present.

13. That the physicians keep a frequently revised file index of towns needing physicians.

14. That, whereas it is true that subsidization of his practice and ready hospital facilities are great physical assets to encourage a young physician to go to a needy rural community, yet the medical school student should be so inspired by his teachers that he will not shrink from doing a little pioneering by going into a needy community and earning and building these things for himself and his adopted community through enthusiasm and positive leadership. Many of his forebears in medical practice have done just that.

15. That scholarships be offered by medical schools in the states where rural physicians are most urgently needed. In such cases, the money loaned may be forgiven on completion of a certain amount of rural practice in that state.

16. That physicians encourage the formation of local health councils to study the needs in each rural community and the ways of obtaining the needed health changes.

17. That a rural health agent, as a representative of the state medical society, be employed to travel throughout the state to coordinate physician and community efforts in rural health activities.

These 26 resolutions were approved and adopted by the Council of Kansas Medical Society on October 5, 1947. After this approval and adoption the Curriculum Committee of the Kansas University Medical School was made acquainted with the wishes of the physicians of the state of Kansas, and Dr. Herbert C. Miller, chairman of the Curriculum Committee, has advised that plans are being made at the University of Kansas Medical School to offer a special intern training course for men desiring to go into general practice. Beginning July 1, 1948, the medical school will be able to accommodate six such interns. Plans are also under way at the University of Kansas Medical School to help and to advise other Kansas hospitals in setting up internships which not only will attract interns, but also will equip them for the type of practice that is so highly desirable at this time.

A great interest is being shown in this state in the Hill-Burton program. At the present time 22 requests for aid in building hospitals have been filed, and many other rural areas are contemplating the filing of such requests.

We have both the Blue Cross and Blue Shield prepayment plans in operation in this state. Of the 1,560 ethical doctors of medicine in Kansas, more than 1,100 are participating physicians in the Kansas Physicians' Service plan version of the Blue Shield.

It is felt by this committee that more active strides must be taken in this state in the development of health councils and in health education. To date, our only progress in this direction lies in the formation of a more comprehensive health program for the 4-H Clubs. This newer program will yield far more benefits to the participants than the previous health contests based only on competitive physical fitness.

Respectfully submitted,

Conrad M. Barnes, M.D., *Chairman.*

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STORMONT MEDICAL LIBRARY

L. E. Eckles, Chr., Topeka; M. L. Bishoff, Topeka; T. P. Butcher, Emporia; J. F. Casey, Topeka; H. C. Clark, Wichita; M. T. Glassen, Phillipsburg; I. A. Koeneke, Halstead; F. H. Schiltz, Wichita; H. J. Williams, Osage City.

To the House of Delegates:

The Stormont Medical Library has enjoyed a greater degree of popularity since it moved to its new quarters in the state house, Topeka, two years ago, and a one-third increase in use has been recorded during the past year. Furnishings for the quarters have been purchased, and a charcoal pastel portrait of Dr. David W. Stormont, to whom the library serves as a memorial, has been hung.

Miss Louise McNeal, state librarian, and Miss Garnett Mottice, medical librarian, have shown a deep interest in assisting the medical profession in Kansas and have set up a system of measuring uses to which the library's service are put. They report that requests for material have been filled for physicians, dentists, bacteriologists, laboratory technicians, nurses, chemists, pre-medical students and a few laymen.

During the past five months, since the records were established, the librarians have prepared and mailed 36 packages of material on requested subjects and have prepared 21 extensive bibliographies. They have also responded to countless requests for less detailed information by mail and by telephone.

Appropriations provided by the 1947 legislature became available July 1, 1947, and $655.50 has been invested in books and periodicals since that time. More material will be purchased after a definite program of selection has been set up, and a file of requests has been set up to indicate needs. Eleven new periodicals have been purchased, and a number of others are being received as gifts from the Kansas State Board of Health, the Journal of the Kansas Medical Society, the Shawnee County Medical Society and the Menninger Foundation. Gifts of books have been received from Dr. William O. Martin, the late Dr. S. T. Millard, Dr. M. G. Sloo, Dr. Glenn Baird, Mrs. F. E. Vest, the Journal of the Kansas Medical Society and Winter Veterans Administration Hospital.

It was recommended by several former committees that all valueless books on the shelves be discarded, and the work of evaluation was done during the past year by Dr. M. L. Bishoff, a member of the committee.

The librarians welcome inquiries at all times and offer their services to all physicians in Kansas.

Respectfully submitted,

L. E. Eckles, M.D., *Chairman.*

STUDY OF HEART DISEASE

P. W. Morgan, Chr., Emporia; P. M. Clark, Jr., Independence; K. L. Druet, Salina; C. W. Erickson, Pittsburg; L. H. Leger, Kansas City; E. D. Liddy, Jr., Lawrence; F. J. McEwen, Wichita; H. T. Morris, Topeka; H. W. Palmer, Wichita; L. O. E. Peckenschneider, Halstead; J. M. Porter, Concordia.

To the House of Delegates:

Several projects have been undertaken by this committee during the past year.

On December 11, 1947, your committee, through the co-operation of Winter Hospital, the Kansas Heart Association, the American College of Physicians and the Kansas State Board of Health, arranged a one-day conference on cardiovascular diseases. This was held at Winter Hospital in Topeka and consisted of ward rounds, scientific speakers and clinical-pathological conferences. Invitations were sent to all Kansas physicians interested in cardiovascular diseases by way of county medical society secretaries. In spite of uncertain weather conditions, the committee felt that attendance and interest in the meeting were such as to warrant the continuation of similar meetings during coming years. Your Committee on the Study of Heart Disease proposes to make such a meeting an annual event.

The second project is an advanced course in cardiology which will be presented in Emporia in October, 1948. Plans for the meeting have been completed and David Scherf, M.D., will direct the course. Attendance will be limited to 40 physicians who have had some advanced training in cardiology, and the matriculants will defray the cost of the course.

One objective of this committee is to assist the medical profession in obtaining graduate education. By sponsoring or arranging the two types of courses, it is hoped that all members interested in cardiology may obtain material of value without having to travel long distances for such work.

As a means of finding unsuspected cardiac abnormalities, thereby serving the public as well as the medical profession, the committee has inaugurated a policy of reviewing the miniature chest x-ray films obtained by the Kansas State Board of Health through its Division of Tuberculosis Control. This program has been successful in that a number of heart conditions have been discovered in this way, thereby making possible early treatment for conditions that might otherwise have escaped immediate notice.

The committee approved the projects of the American Heart Association and before National Heart Week issued a letter to the secretaries of all component societies of the Kansas Medical Society soliciting their support and co-operation in the heart campaigns in their localities.

Respectfully submitted,

P. W. Morgan, M.D., *Chairman.*

VENEREAL DISEASE

J. P. Berger, Chr., Wichita; G. H. Baird, Topeka; D. E. Bux, Columbus; J. K. L. Choy, Topeka; M. H. Delp, Kansas City; L. E. Filkin, Concordia; H. E. Neptune, Salina; J. F. Nienstedt, Beloit; O. F. L. Prochazka, Liberal; G. S. Voorhees, Leavenworth.

To the House of Delegates:

Conversation on the subject of venereal disease, whether casual or in a committee meeting, shortly gets around to rapid treatment and penicillin. Much of the time spent in committee meetings this year has been in a debate on those subjects. Although much evidence is gradually being prepared, the committee, by unanimous consent, believes a decision on the question of minimum standards of treatment would be premature at present.

The director of the Division of Venereal Disease Control of the State Board of Health requested the committee to create a policy on conditions under which drugs should be supplied by the State Board of Health to private physicians for the treatment of venereal disease. The committee voted unanimously that where the society had formerly approved the use of drugs supplied by the Board of Health, members of such a society could obtain these drugs upon request.

The director of the Division of Venereal Disease Control also requested the committee to advise him with reference to the extent of treatment facilities for both inpatient and out-patient care. Your committee unanimously approved the following procedure. Before the State Board

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FREDERICK A. FIGI, M.D., Mayo Clinic, Rochester, Minnesata; Section of Laryngology, Oral and Plastic Surgery.
JOHN J. SHEA, M.D., Memphis, Tennessee.

University of Kansas Faculty:

JOHN A. BILLINGSLEY, M.D., Associate Professor of Ophthalmology.
SAM E. ROBERTS, M.D., Professor of Otorhinolaryngology.
WILLIAM B. BARRY, M.D., Instructor in Otorhinolaryngology.
E. J. CURRAN, M.D., Professor of Ophthalmology.
O. S. GILLILAND, M.D., Assistant Professor of Otorhinolaryngology.
JOHN C. HOWARD, JR., M.D., Assistant in Otorhinolaryngology.
JOHN S. KNIGHT, M.D., Assistant in Otarhinolaryngology.
A. N. LEMOINE, JR., M.D., Assistant in Ophthalmology.
FRANKLIN D. MURPHY, M.D., Associate Professor of Medicine; Dean-designate.
MAURICE J. RYAN, M.D., Assistant in Otorhinolaryngology.
DOROTHY J. SHAAD, M.D., Instructor in Ophthalmology.
LA VERNE B. SPAKE, M.D., Associate Professor of Otorhinolaryngology.
GALEN M. TICE, M.D., Professor of Radiology.
BARNARD C. TROWBRIDGE, M.D., Assistant in Otorhinolaryngology.

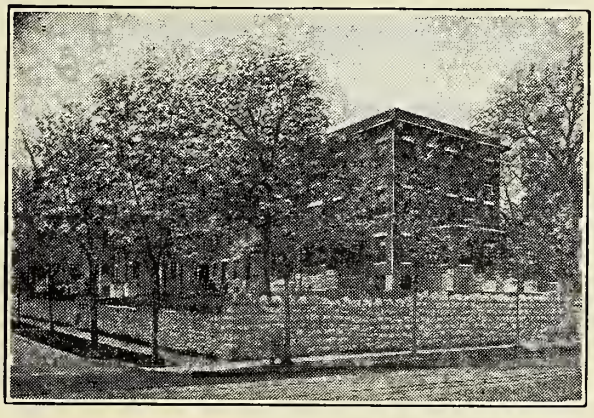
SUBJECTS TO BE DISCUSSED

Labaratory Tests Impartant in Otolaryngology.
Applied Surgical Anatomy.
Tympanosympathetic Anesthesia far Tinnitus Aurium and Secondary Otalgia.
Should the Specialist Have a Broader Knowledge of Internal Medicine?
Modern Office Treatment of Diseases of the Ear, Nose and Throat.
Indications for Fenestratian.
Functional Testing.
Surgical Anatamy of the Head and Neck.
The Importance of Histamine in Otolaryngology.
X-ray Interpretation in Otalaryngology.
Bilateral Abductor Nerve Paralysis—Surgical Treatment.
Differentiation, Causes and Treatment of Certain Types of Headaches.
Benign Tumors of the Nose and Throat.
Malignant Tumors of the Pharynx and Larynx.
Allergy—Testing and Treatment.
Treatment of Upper Respiratory Infections in Children.
Malignant Tumors of the Nose and Accessory Sinuses.
Streptomycin in Tuberculosis of the Larynx.
Direct Laryngoscapy—Simplified Technique.
Diagnosis and Treatment of Glaucoma.
Glaucoma: Anatomy, Histology, Pathology, Classification, Treatment and Surgery
External Diseases of the Eye.
Vitreous Opacities.
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of Health will participate in the establishment of treatment facilities, approval must be obtained from the hospital staff and from the local medical society. The medical society shall determine who will be in charge of the program and will decide whether the staff is on a rotating or permanent basis.

The committee has considered numerous ways in which to assist the medical profession in the matter of modern therapy for venereal disease. A graduate course on this subject has been recommended for the University of Kansas and will be given in the near future. The committee also established a speakers' bureau consisting at present of eight physicians who have offered their services in speaking on various phases of venereal disease before county medical societies.

Respectfully submitted,

J. P. Berger, M.D., *Chairman.*

VETERANS ADMINISTRATION AFFAIRS

L. S. Nelson, Chr., Salina; J. W. Cavanaugh, Topeka; O. W. Davidson, Kansas City; Dwight Lawson, Topeka; E. A. McClinton, Topeka; W. M. Mills, Topeka; C. B. Trees, Topeka.

To the House of Delegates:

According to custom, even though the president of the Society is expected to serve as chairman of the committee, the majority of its members are physicians from Topeka. Your chairman wishes to pay tribute to the members of this committee who have met all year, including the summer months, at intervals of about once each week. They have cared for a vast amount of detail with reference to both examinations and treatments and have continued in the face of much difficulty to keep this public service project of the Society in smooth operation.

Several special meetings were held, as a result of which major operational changes were accomplished. On one occasion the medical director of the Veterans Administration met with the committee, and on several occasions representatives of the branch office at St. Louis were present. The following improvements in the program may be noted as having been accomplished during the past year: (1) the adoption of a new fee schedule; (2) a revision of operational procedure whereby now all contacts between fee designated physicians and the Veterans Administration will be made through the office of the Medical Coordinator at Topeka; (3) strengthening the agreement between the Society and the Veterans Administration to the effect that out-patient care authorized by the chief medical officer of a regional office shall be forwarded to the physician through the office of the Medical Coordinator at Topeka. In this way the Society is notified of authorizations made to physicians in Kansas who are not on the list submitted by the Society. Those applications have been acted on individually by the committee.

This committee has received the finest cooperation from officials of the Veterans Administration, both in Washington and at St. Louis. Kansas is proud to have learned that this program is working satisfactorily and that it is outstanding among such projects in the country. The splendid co-operation of each member of the Society has also made this possible, and especially is the Society indebted to Dr. E. H. Gibbons, Medical Coordinator, for his continued and unselfish efforts to make the Kansas program satisfactory not only to the Veterans Administration but also to the members of the Kansas Medical Society.

Respectfully submitted,

L. S. Nelson, M.D., *Chairman.*

ANNOUNCEMENTS

April 19-23, 1948—Twenty-ninth annual session, American College of Physicians, Civic Auditorium, San Francisco, California.

May 6-8, 1948—Annual Meeting, American Association for the Study of Goiter, King Edward Hotel, Toronto, Canada.

MAY 10-13—ANNUAL MEETING, KANSAS MEDICAL SOCIETY, WICHITA, KANSAS.

June 21-25—Annual Session, American Medical Association, Chicago, Illinois.

June 28-30—Areal Meeting, American Academy of Pediatrics, Hotel Schroeder, Milwaukee, Wisconsin. All Members of State Medical Societies Welcome.

September 20-23—15th Anniversary Convention, American Hospital Association, Hotel Traymore, Atlantic City, New Jersey.

September 29-October 1—13th Annual Meeting, Mississippi Valley Medical Society, Springfield, Illinois.

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FOR SALE—Alpine sun lamp and diathermy. Write the Journal 4-48.

Refresher Course Postponed

A two-day refresher course in hospital administration, originally scheduled for presentation at the University of Kansas Medical Center April 26 and 27, has been postponed until July. Details of the course to be presented in July will be announced later when the program has been completed.

The Greek death rate from tuberculosis is reported to be between 250 and 450 per hundred thousand of population, as compared with 40 in the United States.—J.A.M.A., July 26, 1947.

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OSCAR W. DAVIDSON, M.D.

(Continued from Page 155)

from the University of Kansas School of Medicine in 1926, and has been practicing in Kansas City since that time, specializing in urology. He is a member of a number of scientific organizations including the South Central Section of the American Urological Association, which he served as president in 1946. He became a fellow of the American College of Surgeons in 1934 and a diplomate of the American Board of Urology in 1936. He is now serving as vice president of the Kansas City Southwest Clinical Society.

Dr. Davidson takes office with the good wishes of the entire membership and predictions of a year of service and accomplishment.

Lay Press Exposes Quacks

One of the many articles in the lay press on the general subject of medicine was printed in the November 22 issue of the Saturday Evening Post, an article entitled "Beware of the Medical Frauds." The story outlines the Federal Food and Drug Administration's battle against fraudulent medical devices.

The author reports that the fraudulent gadget business is stronger than ever since the war. Last year the Food and Drug Administration seized 69 shipments of devices guaranteed to put on or take off weight and to cure every known ailment. Dr. Irving Kerlan of the Administration, who classifies the devices as either worthless or dangerous, advises that, "Few therapeutic devices beyond the good old fashioned hot-water bottle are safe in the hands of laymen."

Schering Wins Advertising Honors

The direct mail advertising of the Schering corporation was recently awarded the "Best of Industry" prize by the Direct Mail Advertising association at a meeting held at Cleveland. The recognition, it was said, is due to the effective force of the company's direct mail program of information for the medical profession. Artistic excellence, quality production and high calibre of copy were noted. Dr. John N. McDonnell, vice president of Schering, and the L. W. Frohlich advertising agency share credit for the honor.

Motorized Lens Drill

A new motorized lens drill, scientifically engineered to eliminate separate attachments so that it occupies less than two-thirds of a cubic foot in area, has been announced by the American Optical company. Incorporated features are a built in motor, an offset operating lever, aluminum head castings, adjustable lens stop, and double end upper shaft.

To guarantee greater safety in the operation of the drill, a unique fused plug has been adopted for use on the standard six-foot extension cord furnished with all AO drilling machines. This plug contains two small bus fuses that burn out if motor or wiring trouble develops, thus protecting not only the motor but the laboratory's main fuses as well.

The new drill has been designed to use the standard M967 tapered shank drilling diamond. If customers have a drill with this type of diamond, it can be transferred to the new drill quickly and easily.

Supplement to National Formulary VIII

The American Pharmaceutical Association announces the publication of the first supplement to the National Formulary VIII, a 24-page pamphlet including an index.

The following monographs are added: Amaranth Solution, Compound; Iron and Strychnine Elixir; Iron and Strychnine Phosphates Elixir; Isopropyl Alcohol. The supplement also authorizes replacements and alternative formulas for a limited number of preparations and revises the monographs for certain N. F. drugs.

Members of the American Pharmaceutical Association will receive the supplement without request, and other users of the National Formulary may receive the supplement by writing the association, 2215 Constitution Avenue, N.W., Washington 7, D.C.



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DIABETIC NEUROPATHY*

Alexander Marble, M.D.**
Boston, Massachusetts

Diabetic neuritis, or more properly, diabetic neuropathy, is a condition about which relatively little is known as to etiology and pathology despite the fact that for many years it has been recognized as an important complication of diabetes. Valuable summaries of knowledge have been written in recent years by Jordan[1], Rundles[2], and Treusch.[3]

It is now generally recognized that diabetic neuropathy is not limited to the peripheral motor and sensory nerves but may affect portions of the entire nervous system, including the central, peripheral and autonomic divisions. Widespread involvement is demonstrated clearly by such manifestations as neuropathic foot simulating Charcot joint, diabetic nocturnal diarrhea, bladder paralyses, abnormal pupillary reactions and possibly ocular palsies. Furthermore, Rundles[2] emphasizes the evidence of peripheral sympathetic nerve damage as revealed by sweating deficiencies, loss of vasomotor and pilomotor control, dependent edema and certain types of skin disorders. He cites also instances of orthostatic hypotension and orthostatic tachycardia in patients with diabetic neuropathy.

In the discussion which follows, the term "diabetic neuritis" will be used to indicate the condition in those patients with symptoms referable chiefly to peripheral nerve involvement.

Symptoms and Signs. Recently the records of 50 patients with typical diabetic neuritis seen at the New England Deaconess Hospital in Boston were analyzed.[4] Of these 26 were males and 24 were females, illustrating the common lack of sex difference. The youngest patient at onset of neuritis was 25 years of age and the oldest 77 years with an average of 50.8 years. The average duration of diabetes at onset of neuritis was 5.9 years.

In these and in all patients with diabetic neuritis, the outstanding symptom is pain usually involving the feet and legs and occasionally the upper extremities and trunk. The pain may be superficial or deep and may be described by the patient as cramping, aching, darting or boring. It is often intense and often noted most at night, preventing sleep. Accompanying the pain in most instances are paraesthesias, including hyperaesthesia, burning sensation, numbness, formication and anaesthesia. Not infrequently hyperaesthesia is so marked that the patient cannot bear the weight of bed clothing upon the legs. Common measures are apt not to bring relief and, particularly at night, the patient becomes irritable and restless, finding it difficult to remain quietly in bed. Mental depression and emotional instability are not infrequent but usually are in keeping with the degree of distress.

By no means are all the findings subjective. Definite muscle weakness and absent or diminished tendon reflexes are common. Thus of the 50 patients referred to above, 27 exhibited weakness of one or more extremities. Peroneal paralysis (foot drop) was present in eight cases and quadriceps paralysis in five. Absent patellar reflexes were noted in 28 cases. In Rundles' series of 125 cases, the Achilles tendon reflex was absent in 81 per cent and the patellar reflexes were absent on one or both sides in 56 per cent and greatly diminished in an additional 23 per cent. The biceps and triceps reflexes were diminished or absent in one-third of Rundles' 125 patients. Marked muscle tenderness was found in 37 per cent of his cases, decreased skin sensitivity in approximately one-half, and nine patients showed areas of complete anaesthesia. The vibratory sense at the ankle was diminished in 37 cases and absent in 20.

Patients with full-blown diabetic neuritis are truly incapacitated. They beg the physician for relief from pain and become irritable and discouraged over the long period of days or weeks which may pass without apparent improvement. Muscle weak-

*Presented at the 88th Annual Session, Kansas Medical Society, Topeka, May 13, 1947.

**From the George F. Baker Clinic, Elliott P. Joslin, M. D., Medical Director, New England Deaconess Hospital, Boston, Mass.

ness may be so marked as to make the patient bedridden. One patient, Case 29259, recently seen, was confined to bed for weeks because of marked paresis of one leg and just now, some nine months after the onset of neuritis, is regaining strength and beginning to be up and about with the aid of braces and other supports.

Spinal Fluid. Examination of the spinal fluid shows almost invariably an increase in the total protein without increase in the number of cells. Thus, in our own series, among 84 cases reported by Root and Rogers[5], 84.5 per cent had a spinal fluid protein over 50 mg. per 100 cc. Fifty-two per cent had values ranging between 71 and 120 and 17 per cent values between 121 and 390 mg. per 100 cc. Among 280 patients with diabetic neuropathy, Root and Mascarenhas[6] found the spinal fluid protein to exceed 50 mg. per 100 cc. in 72.7 per cent. The cellular content, pressure and dynamics are characteristically normal in diabetic neuropathy. The globulin is usually increased. The colloidal gold curve may be slightly elevated, often in the midzone, but may simulate the paretic gold curve with elevation to the left. The severity of neuritis tends to parallel the level of the spinal fluid protein and clinical improvement is usually accompanied by a decrease in this value.

Course. Although the duration of symptoms is variable, the course of diabetic neuritis is apt to be prolonged, ranging from a few or several weeks to a few or several years. The prognosis is, in general, good, especially in the younger age groups, provided that treatment is begun before permanent nerve damage has occurred. Residual neurologic signs may persist for an indefinite period.

Classification of neuritis. It is difficult to classify diabetic patients with neuritic pain into groups since these tend to overlap. However, such an attempt is worthwhile particularly in estimating prognosis. The remarks thus far have been concerned with what might be termed true diabetic neuritis. In addition, it is customary to recognize two other types:

(1) that characterized by neuritic symptoms in the absence of objective signs except possibly nerve or muscle tenderness. With control of diabetes, the pains promptly subside, often in a matter of a few or several days. Jordan[1] has called this the "hyperglycemic" type.

(2) that characterized by considerable circulatory deficiency and evidence of degenerative changes. In this group it is difficult to assay the relative importance of circulatory, as opposed to neuritic, disturbances.

Pathology. Relatively little is known about the pathology of diabetic neuritis. This comes about because in its purest form diabetic neuritis occurs in individuals under 50, is not fatal and recovery usually takes place. It is true that Woltman and Wilder[7] in a study of the degenerative or circulatory type of neuropathy described areas of degeneration in the peripheral nerves, more marked distally and associated with thickening of the walls of the nutrient vessels. They therefore attributed the nerve changes to arterioscelerosis. Slight changes in the spinal cord, most marked in the posterior columns, were also noted and attributed to arteriosclerosis. However, as emphasized above, typical acute diabetic neuritis often occurs in patients under the age of 50 years without noteworthy arteriosclerosis and with them the condition may be completely reversible, so that the evidence is strong that this major type is not due to arteriosclerosis.

Etiology. There has been much discussion as to the etiology of diabetic neuritis. Our own experience teaches that it follows a period of uncontrolled or poorly controlled diabetes[6]. Often the history as first obtained may not seem to bear this out but further questioning will reveal the fact that the diabetes had indeed been poorly controlled although in the few days or weeks prior to the patient's first visit, treatment had been made more strict with the result that at first visit the condition seemed satisfactorily controlled.

The possible role of vitamin deficiency, especially of thiamin deficiency, has been debated for years. A direct relationship is difficult to establish. Analyses of diet histories are always difficult and fraught with error but, taken for what they are worth, they do not indicate in most patients any significant inadequacy in the food as eaten. One can always raise the possibility of decreased absorption, increased utilization, larger requirement, or increased excretion of the vitamins but at present only speculation is possible. The outstanding fact is that the use of thiamin or vitamin B complex in extraordinarily large doses fails to bring about any prompt or dramatic recovery. Certainly if thiamin deficiency is an important factor in diabetic neuropathy, it is dependent upon the metabolic disturbance of uncontrolled diabetes.

Treatment. Unless the diabetes is brought and maintained for a prolonged period under meticulous control, all other attempts at treatment will fail. A thoroughly adequate diet should be provided and protamine zinc insulin, either alone or in combination with unmodified insulin, should be used. Although no dramatic benefit can be expected, large doses of vitamin B complex should be given. Relief of pain may be secured in part by salicylates but these are often inadequate and codeine and barbiturates must often be used, especially at night. A

cradle over the foot of the bed to protect the legs from the weight of bed clothing is helpful when hyperaesthesia is marked. Warm tub baths are often soothing but some patients obtain more relief from cool baths or ice packs. If foot drop is present, appropriate support should be provided and, after the acute stage of neuritis has passed, massage and passive and active motion and other physiotherapeutic measures may be of great aid in restoring normal muscle strength and function.

NEUROPATHIC FOOT

An unusual manifestation of diabetic neuropathy is the so-called "neuropathic foot," a condition in which changes occur in the bones of the foot which simulate those of the Charcot joint seen in syphilis of the central nervous system. The earliest gross change is a thickening of the tarsal region which tends to progress slowly. Eventually, there results a thickened, deformed foot with a tendency to eversion, external rotation and a flattening of the longitudinal arch. By x-ray the neuropathic foot is quite similar to the Charcot joint of syphilis except that the destruction is usually limited to the tarsal and proximal ends of the metatarsal bones.

Our experience with neuropathic foot has recently been summarized by Bailey and Root.[8] In their series there were 18 patients, eight women and 10 men. The ages ranged from 30 to 69 years with an average of 56 years. The average duration of diabetes to date of study was 11 years. Of 12 patients for whom data were available, the spinal fluid Wasserman was negative and the total protein was increased in 10 of the 12 cases with an average value of 69 mg. per 100 cc. The kinship of neuropathic foot with diabetic neuropathy as a whole is shown in the fact that 13 of the 18 patients had peripheral neuritis with absent knee jerks, foot drop, anesthetic foot*, and loss of sensation and vibratory sense. Other complications not uncommon in longstanding diabetes were present; there was hypertension in 14, marked albuminuria in six and retinitis in nine patients. Two of the group had nocturnal diarrhea.

It is believed that the bone destruction seen in neuropathic foot represents a trophic change resulting from diabetic neuropathy. No case has shown any tendency to improve and the only treatment that has proved helpful has been the use of orthopedic appliances in an effort to relieve weight bearing and thereby help to present further deformity. Careful control of the diabetic condition and the furnishing of a diet adequate in all respects are indicated.

*In one patient seen recently (Case 22843) anaesthesia was so complete that transmetatarsal amputation was carried out entirely without anaesthesia, local or otherwise.

DIABETIC NOCTURNAL DIARRHEA

Another unusual manifestation of diabetic neuropathy has been variously referred to as the "diarrhea of diabetes" or "diabetic nocturnal diarrhea." Recently 40 cases of this type were reported by Sheridan and Bailey[9] of our group. Characteristic of the diarrhea of these patients was its occurrence chiefly or entirely at night. There might be little or no diarrhea during the day, yet the patient might have 10 to 15 brown, watery stools during the night. It tended to occur intermittently in 85 per cent of cases with remissions lasting for several days followed by relapses. Nocturnal incontinence of feces occurred in 78 per cent.

In this series there were 23 males and 17 females with an age range of from 20 to 79 years (average 42 years). The average duration of diabetes was nine years. Achlorhydria, even after histamine, occurred in 14 of 29 patients examined. The total protein content of the spinal fluid was increased in 17 of 18 cases examined with an average value of 88 mg. per 100 cc. Fifty-two per cent of patients gave a history of preceding neuritis. Further evidence of previous poor diabetic control, as shown by hyperglycemia and glycosuria, was noted in each of the 40 cases.

Treatment with a low-residue, bland diet, sulfonamides, hydrochloric acid, vitamins and drugs exerting a costive effect, was of little value. It was found, however, that crude liver extract given parenterally was of definite benefit in controlling diarrhea in 26 of the 28 cases in which it was used. Injection of two to four cc. of the extract daily for a few days, followed by a maintenance dose of one to two cc. weekly, usually proved adequate. A lapse in treatment was usually followed by a relapse of diarrhea.

Despite the unexplained symptomatic improvement with liver extract, Sheridan and Bailey concluded that this diarrheal syndrome probably represents a nerve disturbance of the bowel, possibly involvement of the sympathetic nerves, on the basis of diabetic neuropathy. Only two cases have had prolonged remissions or possible cures; both had diabetic neuritis and with cure of the neuritis, the diarrhea disappeared.

OTHER NEUROPATHIES

Other manifestations of diabetic neuropathy include abnormal pupillary reactions, possibly ocular paralyses, and genito-urinary disturbances. As to the last-named complication, Rundles[2] found that one-fourth of 115 patients with diabetic neuropathy had genito-urinary or sphincter disturbances. An atonic bladder paralysis or so-called "cord bladder" occurred in 18 of Rundles' patients. Our own experience has been reported by Jordon[1], and Crab-

tree[10] and Baldwin and Root.[11] The prognosis in these patients is, in general, not good and this type of bladder disturbance is usually irreversible.

SUMMARY

1. Diabetic neuropathy is not limited to peripheral motor and sensory nerves but may be widespread in its manifestations.

2. Although the exact cause is not clear, diabetic neuropathy appears invariably to follow a period of poor diabetic control. The possible role of vitamin B deficiency is difficult to assay.

3. Although diabetic neuritis may be incapacitating and symptoms may last for weeks or months, the eventual prognosis is good, particularly in younger individuals.

4. The spinal fluid is characterized by an increase in total protein with no increase in cells.

5. Treatment consists in meticulous control of the diabetic condition, the furnishing of an adequate diet, the giving of supplements of vitamin B complex and physiotherapeutic measures.

6. Unusual manifestations of diabetic neuropathy include "neuropathic foot," bladder paralysis and nocturnal diarrhea. Prognosis in the first two conditions is poor. Diabetic nocturnal diarrhea may be benefited by crude liver extract given parenterally.

REFERENCES

1. Jordan, W. R.: Neuritic Manifestations in Diabetes Mellitus, Arch. Int. Med. *57*, 307-366 (Feb.) 1936.
2. Rundles, R. W.: Diabetic Neuropathy. General Review with Report of 125 Cases, Medicine, *24*, 111-160 (May) 1945.
3. Treusch, J. V.: Diabetic Neuritis: A Tentative Working Classification. Proc. Staff Meet. Mayo Clinic, *20*, 393-402 (Oct. 31) 1945.
4. Joslin, E. P., Root, H. F., White, P., Marble, A. and Bailey, C. C.: The Treatment of Diabetes Mellitus, 8th Ed., Philadelphia, Lea and Febiger, 1946. See Chapter XVIII by Bailey and Murray.
5. Root, H. F. and Rogers, M. H.: Diabetic Neuritis with Paralysis, New Eng. J. Med., *202*, 1049-1053 (May 29) 1930.
6. Root, H. F. and Mascarenhas, C. C.: Diet in Uncontrolled Diabetes Preceding Acute Neuropathy, Amer. J. Digest. Diseases, *13*, 173-178 (June) 1946.
7. Woltman, H. W. and Wilder, R. M.: Diabetes Mellitus, Pathologic Changes in the Spinal Cord and Peripheral Nerves, Arch. Int. Med., *44*, 576-603 (Oct.) 1929.
8. Bailey, C. C. and Root, H. F.: Neuropathic Foot Lesions in Diabetes Mellitus, New Eng. J. Med., *236*, 397-401 (Mch. 13) 1947.
9. Sheridan, E. P. and Bailey, C. C.: Diabetic Nocturnal Diarrhea, J.A.M.A., *130*, 632-634 (Mch. 9) 1946.
10. Jordan, W. R. and Crabtree, H. H.: Paralysis of the Bladder in Diabetic Patients, Arch. Int. Med., *55*, 17-25 (Jan.) 1935.
11. Baldwin, A. D. and Root, H. F.: Infections of Upper Urinary Tract in Diabetic Patients, New Eng. J. Med. *223*, 244-250 (Aug. 15) 1940.

CONGENITAL ABSENCE OF THE LEFT CORONARY ARTERY: OCCLUSION OF AN ANOMALOUS BRANCH OF THE RIGHT CORONARY ARTERY; PULMONARY EMBOLISM*

Stewart M. Wilson, M.D.

Kansas City, Kansas

Modern medical literature records only eight instances of congenital absence of the left coronary artery. Only one of these[9] was complicated by coronary occlusion. These facts would seem to justify the reporting of this case.

Major anomalies of the coronary arteries are rare. Concerning those similar to this one Maude Abbott[1] states, "Accessory coronaries may be present or both vessels may arise behind a single aortic cusp, or there may be a complete absence of one." In an excellent review of the literature, Sanes[8] cited eleven reported cases, which, with his own and a subsequent case reported by King,[6] make a total of 13 instances of absence of either the right or left coronary artery. Sanes objected to the practice of designating such an abnormality as "absence of" the artery and preferred to refer to it as "anomalous distribution" of the vessel in question. For the sake of clarity and ease in classification, however, we prefer to refer to the anomaly, as most previous authors have, as "absence of" the coronary artery. Of the eleven cases which he reviewed six might be classified as absence of the left coronary artery and five as absence of the right.

*From the Department of Pathology and Medicine, University of Kansas School of Medicine.

REPORT OF CASE

History. G. R., a white male, aged 75, was admitted to University of Kansas hospitals on December 7, 1945. The chief complaints were coughing and shortness of breath. He apparently was completely well until six years previous to admission when he began to notice slight effort dyspnea. There had been some swelling of the feet and ankles, more noticeable at the end of the day, for five years. He had suffered from numerous episodes of substernal pain. The first attack occurred four years previous to admission. It lasted approximately 20 minutes and radiated down both arms to the elbows. After this time the dyspnea progressively increased in severity and frequent attacks of orthopnea occurred. For several days he had had a productive cough and on the preceding day the sputum had been blood tinged. He had intermittently taken a teaspoonful of a green liquid medicine three times a day for several years. Considerable symptomatic relief always resulted initially but the medication was always

discontinued after a few days because of nausea and vomiting.

Physical examination. The patient was noted to be an elderly, well developed, well nourished, white male, sitting in an upright position, obviously extremely dyspneic. He coughed frequently during the course of the examination. The blood pressure was 120/70. The pulse rate was 78 per minute and the rhythm was irregular. Fundoscopic examination revealed advanced arteriosclerotic changes of the retinal arteries. Examination of the heart was essentially negative except that the heart sounds were rather faint. Moist rales were heard in both lung bases. The remainder of the examination was negative except for slight ankle edema.

X-ray and laboratory findings. A chest x-ray on December 8, 1945, showed evidence of cardiac enlargement and early decompensation. Routine laboratory findings were essentially within normal limits except for a moderate leukocytosis and a blood N.P.N. level of 64.5 mg. per cent. An electrocardiogram on December 8, 1945, showed evidence of first degree heart block, multiple ventricular premature systoles, poor electrical response and a major defect of intraventricular conduction of the right bundle branch type. These changes were interpreted as probably caused by diffuse coronary artery disease and myocardial fibrosis.

Hospital Course. Treatment consisted of bed rest, restriction of fluids and low salt diet. Digitalis was avoided because of the possibility of digitalis intoxication. The patient's condition gradually became worse. On the morning of December 12, 1945, he began to cough up moderate amounts of bright red blood and hemoptysis continued throughout the entire day. In the evening physical examination showed dullness to percussion over the entire right side of the chest. Coarse bubbling rales and a friction rub were heard over the apex posteriorly. Breath sounds were diminished below this area and absent at the base. A thoracentesis was done and 800 cc of grossly bloody fluid was removed. The pulse rate suddenly increased to 200 per minute at 6 P.M. An electrocardiogram showed evidence of ventricular tachycardia. The patient died on the following day.

The clinical diagnosis was: "Coronary artery disease with mild decompensation and digitalis intoxication; pulmonary embolism with infarction."

Post-mortem examination was done approximately 13 hours after death. The anatomical diagnosis was: coronary sclerosis with healed occlusion of the left circumflex branch and healed infarction and aneurysm formation of the posterior wall of the left ventricle; thrombosis of common iliac vein; pulmonary embolism and infarction; congenital absence of the left coronary artery; anomalous distribution of the right coronary; chronic fibrous myocarditis; chronic passive congestion of the lungs, liver and kidneys; fragmentation and segmentation of the myocardium; hypertrophy and dilatation of the heart; localized chronic pleurisy and diverticulosis of the colon. A description of the gross and microscopic changes of the heart is given below.

Gross pathological changes. The pericardial sac is completely obliterated by adhesions, however the adhesions are very thin and soft and the original parietal and visceral pericardium are easily separated with blunt dissection with the finger tips.

The heart weighs 440 grams, is somewhat globular in shape, flabby in consistency and dark red in color. The chambers contain chicken fat clots. The foramen ovale is closed. The left ventricle is considerably dilated and a portion of its wall greatly thinned. Both the pericardial and endocardial surfaces of this area present a grayish white appearance. It is roughly L-shaped, one arm extending along the entire length of the interventricular sulcus and involving the tip of the apex and a small portion of the upper part of the interventricular septum. The other arm of the L extends 4.5 cm. adjacent to the left auriculoventricular septum. The area varies from 2 to 3 cm. in width. The thickness varies from 1-2 mm. and on cut section it is firm, white, inelastic and fibrous. The remainder of the myocardium, on cut section, is dark red in color, moderately flabby in consistency and scattered irregular linear grayish patches may be seen. The papillary muscles, chordae tendineae and columnae carneae show nothing unusual. The endocardium is smooth, moist and glistening. The valves show no changes. The circumferences of the valve rings are as follows:

Tricuspid.	—14 cm.
Mitral.	—10 cm.
Pulmonic	— 9 cm.
Aortic.	— 8 cm.

No suggestion of a coronary ostium is seen in any

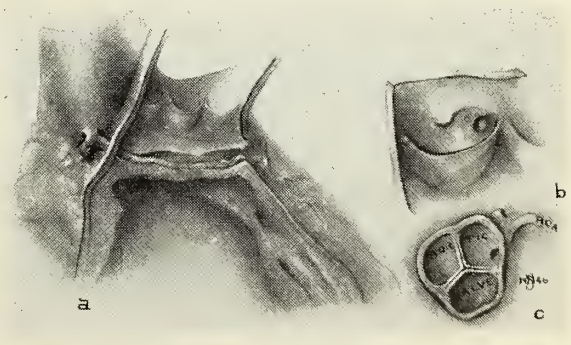


Figure 1. (a) The wall of the right ventricle is removed to show the course of the left branch of the single coronary artery through the septum. (b) Detail of the ostium of the artery. (c) Superior view of the aortic valve showing relation of ostium to cusps.

of the sinuses of Valsalva except that behind the anterior cusp. In the right half of this sinus a secondary sinus, 11 mm. in diameter, is seen. The anterior margin of this sinus is formed by a cleft three mm. in depth. On probing, this is found to end blindly and no ostia arise from it. Adjacent to this cleft on the posterior margin is a pinpoint ostium too small for dissection. In the posterior portion of this sinus is seen a single ostium approximately four mm. in diameter. This artery follows the usual course of the right coronary artery except that it ends in fine branches near the posterior interventricular sulcus and no posterior descending branch is seen. Adjacent to the ostium a large branch is seen, the junction describing an angle of approximately 90°. This branch immediately passes through the wall of the conus, and traverses the septal wall of the conus one cm. below the pulmonic valve about two mm. below the endocardium. It emerges to the pericardial surface in the upper portion of the anterior interventricular sulcus where it divides into an anterior descending branch and a circumflex branch. The former follows the usual course of the anterior descending branch of the left coronary artery. The circumflex branch follows the auriculoventricular sulcus to a posterior position where it turns downward and for two cm. lies lateral to the thin fibrous portion of the left ventricular wall described above and about five cm. from the interventricular septum. At a point four cm. from the bifurcation the lumen of the circumflex branch is completely obliterated and from this point to its termination is seen as a thin fibrous band.

Just above the aortic valve the ascending aorta shows numerous confluent slightly elevated plaques, more deeply yellow in color than the adjacent intima. The aorta is slightly thickened and the elasticity is reduced. The coronary arteries are thickened and hardened throughout, the lumen is narrowed and numerous intimal plaques are seen. Smaller branches are either completely obliterated or too small for dissection.

The ostium of the left branch, adjacent to the aortic ostium of the single coronary artery, is so narrowed that it is only discovered by dissecting in a retrograde manner from the point of bifurcation into a circumflex and anterior descending branch.

Microscopic examination. Along the anterior wall of the left ventricle the serosal lining appears patchy in distribution with islands of cells interrupted by adhesive tags. The underlying connective tissue is scanty and with the increased vascularity there is infiltration by scattered mononuclear cells. The myocardium shows an increase in lipochrome pigment, frequently extending from one nucleus to the next. The fibers contain vacuoles which are larger and more numerous in the fibers near the endocardium. Within many of the vacuoles masses of light brown pigment are observed. Pyknosis of nuclei is a prominent feature of the section. Striations are indistinct throughout and are completely lost in many areas.

Near one edge of the infarct the section presents a laminated structure. The thicker layers consist of a dense, rather acellular collagenous connective tissue while in the thinner portions of tissue there are apparently degenerated myocardial fibers. The pericardial surface is represented by a thin layer of loose collagenous connective tissue, the edge of which has a shredded appearance where the serosal layer has been replaced. A second section through the area of infarction shows similar changes.

In a section of papillary muscle there is considerable patchy fibrosis. The tissue appears hyperemic with numerous dilated blood spaces filled with red blood cells. The muscle fibers are distinctly striated and do not show the changes noted in the other heart sections.

Sections of the two main branches of the coronary artery show considerable thickening and in one of the arteries there are large deposits of homogeneous purple staining material, apparently calcium salts. Accumulations of cells with a highly vacuolated foamy appearance are prominent in the other vessel which is the site of less calcification.

COMMENT

Of the eight previously reported cases, three, those of Gallavardin and Revault,[4] Kintner,[7] and that of Born[2] show an arterial distribution similar to that of ours, although differing in detail; while those reported by Buchdalek,[3] Smith and Graber,[9] Grätzer,[5] Sanes,[8] and King[6] show little resemblance.

The arteriosclerotic narrowing and deformity of the ostium of the left branch obscures the picture of what the appearance of the sinus may have been in earlier life. It is conceivable that originally these may have been two arteries of approximately equal size with a common ostium in the anterior sinus.

It is interesting to note that while there was evidence of coronary occlusion for over four years, death did not occur until after pulmonary embolism with infarction associated with cardiac failure. The source of the embolus was in a thrombus of the iliac vein.

SUMMARY

A case of congenital absence of the left coronary artery with occlusion of an anomalous branch of the right coronary artery is presented. This was complicated by myocardial infarction, aneurysm formation, adhesive pericarditis, and pulmonary embolism.

BIBLIOGRAPHY

1. Abbott, Maude: Chapter on Congenital Cardiac Disease, in

Modern Medicine (3rd edition), edited by William Osler and Thomas McCrae, Philadelphia, Lea and Febiger, 1927 (vol. 4, p. 797).
2. Born, E.: Ueber Missbildungen der Kranzarterien unde ihre Beziehungen zu Zikulationsatorüngen uad plotzlichen Tod, Virchows Arch. fur path. Anat. 290:688, 1933.
3. Buchdalek, H.: Abnormaler Verlauf der Kranzarterien des Herzens, Virchows Arch. f. path. Anat. 41:260, 1867.
4. Gallavardin, L., and Ravault, P.: Anomalie de' origine de la coronaire arterieure, Lyon me'd. 36:270, 1925.
5. Gratzer, A.: Der Seitenbahn Kreiskanf an einem Herzen mit einer Kranzschlagader, Virchows Arch. f. path. Anat. 262:608, 1926.
6. King, A.S.J.: A Single Coronary Artery, Brit. Heart J., 2:79, 1940.
7. Kintner, A.R.: Anomalous Origin and Course of Left Coronary Artery, Arch. Path. 12:586, 1931.
8. Sanes, S.: Anomalous Origin and Course of the Left Coronary Artery in a Child, Am. Heart J., 14:219, 1937.
9. Smith, F. M., Graber, V.C.: Coronary Thrombosis with Congenital Absence of the Left Coronary Artery, Arch. Int. Med. 38: 222, 1926.

CANCER OF THE LARYNX—10-YEAR REVIEW OF 74 CASES*

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Cancer of the larynx is one of the easiest of all cancers to diagnose and therefore to cure, as the onset is not a silent one, but makes itself noticeable to the patient, his family, and to his doctor, almost at once by persistent hoarseness or throat discomfort.

However, this review would indicate that cancer of the larynx is one of the most incurable of all cancers, as 77 per cent of the 74 cases admitted to the University of Kansas Medical Center during the past 10 years had, for all practicable purposes, a hopeless prognosis on admission. The answer to this apparent contradiction is a simple one. The average duration of symptoms of these 74 patients was 12 months, before admission to the hospital.

ETIOLOGY

Etiologic factors in the development of cancer of the larynx are practically the same as those in cancer of other internal organs. Age, sex, heredity, and trauma are all etiologic factors of importance.

In this series, the age of the patients varied from 19 to 89 years of age, and slightly over 50 per cent were in the age group of 40 to 60.

This disease is ten times more common in men than in women, and this ratio was followed in this review as only seven of the patients were women.

There is some evidence that vocal abuse, as exemplified by singers, public speakers, excessive smoking, etc., predispose to the development of laryngeal cancer.

DIAGNOSIS

The diagnosis, or rather the suspicion of the diagnosis of cancer of the larynx can and should be made on the history alone. The symptoms are definite, few in number, and almost immediate in occurrence. They are change of voice or hoarseness in intrinsic cancer of the larynx and throat discomfort or pain in extrinsic cancer. If either of these symptoms is present in a patient for six weeks or more, a definite series of procedures should be followed at once, to rule out the possibility of cancer.

They are:

1—Careful laryngeal history with reference to voice change or discomfort in region of the larynx.

2—Indirect or mirror laryngoscopy of the larynx and pharynx by a competent examiner.

3—Complete blood work, including especially a Wasserman test.

4—Roentgen examination of the neck and chest.

5—Direct laryngoscopy with biopsy of any suspicious lesion.

All of the patients in this series had hoarseness or throat discomfort for a period of months before admission. Although many of these patients had not consulted physicians, a surprising number had consulted one or more doctors. They were given gargles, sprays, sulpha drugs, etc., and in several cases told not to worry about it.

Unfortunately, intrinsic cancer of the larynx is not a painful disease until very late in its course. Therefore the public, and possibly the medical profession as well, should be alerted to the fact that persistent hoarseness of six weeks or longer duration is just as important and dangerous a sign as a lump in the breast. And yet with reasonably early diagnosis, the chances for a real cure are much better.

Primary extrinsic cancer of the larynx also, manifests itself early with throat discomfort or pain. However, the end results in this type of cancer are not nearly as good as in intrinsic cancer of the larynx. Nevertheless, irradiation, and in selected cases surgery, have resulted in cures, so early diagnosis is important in this type of case.

TREATMENT

There are two methods of treatment for cancer of the larynx, surgical excision and irradiation. Occasionally, in selected cases, a combination of the two may be advisable.

Surgery is usually the method of choice in the early cases, because excision of the growth results in a high percentage of cures. This high curability rate is the result of the growth being enclosed in a

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cartilaginous box, that resists extension, both by metastasis and by direct extension, as the lymph drainage of the larynx is very poor in addition to the mechanical obstruction offered by the cartilage.

The operation of choice in the early cases is the laryngofissure procedure. In this operation, the larynx is opened and the growth together with a portion of normal cord tissue is removed. This operation offers 80 per cent cures, and leaves the patient with a surprisingly good voice, but is applicable only in those cases in which the lesion is limited to one cord without fixation, and occasionally, if it involves both cords, as long as there is no cordal fixation.

In case the lesion is more extensive, but still confined to the larynx, the more radical complete removal of the larynx or laryngectomy is indicated. This offers a 30 to 50 per cent chance of permanent cure, depending upon the type and extent of the growth.

In cases that are primarily or secondarily extrinsic, refuse operation, or in those cases that are not suitable risks for surgery, irradiation has given some excellent results in both the early and late cases.

In this series of 74 patients, only 21 were considered suitable for surgery. Out of these 21 cases, five had laryngofissures and the remaining 16 had laryngectomies performed. To make the picture even worse, 11 of the laryngectomized patients received followup irradiation, which would indicate that the surgical indications were borderline. Followup checks on these 21 patients were not complete. However seven of the laryngectomized patients died of recurrence, usually within a year or two following operation, although one died of recurrence after six years. Three patients with laryngectomies are alive and well after six to eight years without a recurrence. The other six patients with laryngectomies could not be traced. One of the five patients with laryngofissures, a girl of 20, died with a recurrence of her cancer after 10 months. Two others are alive and well after several years, and the other two could not be traced.

PROGNOSIS

Cancer of the larynx can be cured, and cured in a very high percentage of cases, as has been proved repeatedly by Jackson, Tucker, Clerf, Holinger, and many others. The most important factor in a favorable prognosis is an early diagnosis. When all cases of hoarseness were thoroughly investigated after a period of six to eight weeks duration, the curability rate has been repeatedly demonstrated to range between 80 and 90 per cent, as this cancer usually remains intrinsic for several months, and sometimes for as long as a year.

The prognosis, also, depends upon the location and extent of the lesion. If the lesion is located in the middle or anterior third of the cord, the prognosis is much better than if it is located near the posterior commissure, where extension to the laryngo-pharynx occurs much more readily.

However, the prognosis of the 74 patients admitted to the University of Kansas Medical Center during the period 1937 to 1946 was very poor in the great majority of cases. Fifty-three patients or 77 per cent had progressed so far that no type of curative surgery was considered advisable. This was largely due to the fact that the duration of symptoms of these 74 patients averaged 12 months before admission.

In addition to the fact that only 21 out of the 74 patients were considered suitable for any type of curative surgery, 18 cases required lifesaving tracheotomy, either on admission or shortly thereafter. Also, more than half of these patients had, on admission, the very late symptoms and signs of the disease, such as difficult breathing or swallowing, weight loss, and pain.

CONCLUSIONS

1—Cancer of the larynx can be cured in a much higher percentage of cases than cancer of any other internal organ, if diagnosed reasonably early.

2—Hoarseness, the one cardinal symptom of intrinsic cancer of the larynx, is noticeable immediately.

3—Any individual, regardless of age or sex, who has hoarseness or local throat discomfort for a period of six weeks or more, should be considered a cancer suspect, and investigated thoroughly and repeatedly if necessary.

4—The above facts should be brought to the attention of the public and the medical profession as well.

REFERENCES

1. Clerf, Louis H.: Cancer of the Larynx, an analysis of 250 Consecutive Cases, Arch. Ototlaryng., Sept., 1940.
2. Holinger, Paul H.: Carcinoma of the Larynx, Ill. Med. Jour., July, 1945.
3. Jackson, Chevalier, and Jackson, C. L.; Cancer of the Larynx. Philadelphia, W. B. Saunders Co., 1939.
4. Jackson, C. L.: Laryngofissure for Cancer of the Larynx, Arch. Otolaryng., April, 1941.
5. Jackson, C. L., and Norris, C. M.: Surgical Treatment of Carcinoma of the Larynx, Laryngoscope, May, 1945.
6. Orton. Henry B.: Laryngeal Surgery, Laryngoscope, March, 1946.
7. Tucker, Gabriel: Cancer of the Larynx, Penn. Med. Jour., May, 1945.

Exhibit for Physician Artists

Physicians who plan to exhibit art work at the exhibition of the American Medical Association in Chicago June 21-25, 1948, are asked to write now for entry blanks, rules, and shipping labels. Entry blanks must reach Chicago before June 12. Complete information may be secured from Francis H. Redewill, M.D., secretary of American Physicians' Art Association, Flood Building, San Francisco.

CREEPING ERUPTION IN KANSAS

Orville S. Walters, M.D.

McPherson, Kansas

Creeping eruption, the cutaneous lesion produced in the human skin by the third stage larva of a hookworm, has been regarded as almost peculiar to the south, especially to the gulf states. The largest incidence has been observed in Florida, although cases have been reported from Texas, Louisiana, North and South Carolina, Virginia and Oklahoma.

There is reason to believe that the condition is not rare in Kansas, but apparently no cases have been reported from this state. Ten cases seen by the author during a two-year period are described here and their treatment is discussed.

ETIOLOGY

Until 1924, no clear-cut differentiation had been made between the very common type of creeping eruption seen in the gulf states and the less common types of creeping disease due to fly larvae (myiasis) or to another nematode infestation, gnathostomiasis, which has an oriental distribution. In that year, Kirby-Smith, Dove and White[1, 2] undertook to ascertain the cause of the common form. In a brilliant and painstaking study, they incriminated *ancylostoma braziliense,* a hookworm infesting cats and dogs, as the cause of the lesion, and reproduced the characteristic eruption experimentally in the human skin.

The characteristic sources of infection were warm, damp, sandy soil. Most of the cases were in children, but adults also acquired the parasite, usually while working under a building or automobile, or while otherwise exposing the unprotected skin to the ground. The evidence assembled by these investigators indicates that soil becomes infested with the hookworm through the deposition of feces by cats and dogs where warmth and moisture permit development and preservation. The larvae become lodged in the human skin while it is in contact with the contaminated soil.

Shelmire[3] corroborated the work of White and Dove by inoculating *A. braziliense* into uninfected cats, re-isolating the nematode, and applying the worms in pure culture to the unbroken skin of 18 medical students. Typical lesions of the eruption developed in 16 of the 18 subjects. Microscopic and cultural examination of the stools of these subjects showed no evidence of intestinal hookworm disease. Hitch[4] and Wright and Gold[5] have confirmed the fact that infestation with the parasite is apparently confined to the skin, although the latter authors reported a concomitant incidence of Loeffler's syndrome in nine out of 15 cases under prolonged observation. Recently, Mayhew[6] has reported creeping eruption due to the larvae of the cattle hookworm, *Bunostomum phlebotomum,* almost identical with that produced by the dog hookworm.

APPEARANCE AND COURSE

Grossly, the lesion produced by the larva is a linear, serpiginous burrow. The track is 1-2 mm. wide, red and raised. Vesicles may be formed along the course of the tortuous tunnel. The parasite travels from one to several centimeters a day. The area of the lesion itches intensely.

By removing portions of skin and making a large number of microscopic sections, Kirby-Smith, Dove and White demonstrated the nematode between layers of excised skin. The worm is 1/1200 inch in width and 1/40 inch long. The tunnel is in the stratum mucosum with the stratum granulosum as a roof and the corium as the floor.

Migration of the worm in the skin from the point of entry occurred in Shelmire's volunteers on the fourth day. The infestation was inadvertently terminated in several through removal of the worm by scratching. Some lesions healed spontaneously in seven to 14 days. In other cases, the progress of the disease was still unchecked at the end of three months without treatment.

TREATMENT

Destruction of the nematode by freezing with ethyl chloride will terminate the condition in most cases. In some instances, repeated freezing is required, probably because the parasite had moved beyond the area frozen. Carbon dioxide snow has been reported five to ten times more effective than ethyl chloride by Van Studdiford[7]. At times, freezing is unsuccessful and other measures must be employed.

Smith[8] suggested the use of sodium antimony biscatechol (fuadin) and reported success with intramuscular injections. Wilson[9], Rubin [10], Dolce and Franklin[11] and others have reported similar success, although Blank[12] was unable to obtain a cure with fuadin.

Recently, Hailey[7] has reported the use of grated onion poultices in preference to fuadin. Hitch[4] has tried, in addition to fuadin, neostibosan, antimony potassium tartrate and oxophenarsine in various cases. He regards the latter as the most promising.

The cases here reported were seen during the summers of 1945 and 1946 and originated in Mc-

Pherson and northeast Reno counties. Most of the cases were in children, and all gave a history of having exposed the bare skin to sand or damp soil. In four of the cases, the eruption was associated with an active dermatophytosis of the feet, and the track of the parasite started at a break in the skin. In most instances, the parasite traveled in two or three days from the plantar surface to the dorsum of the foot, where most of the subsequent migration occurred. In one instance, the burrow began at the vulva, describing a migratory course across the perineum to the buttock.

The first two cases seen were terminated by painting repeatedly with mercresin. Subsequent cases were satisfactorily terminated by freezing with ethyl chloride except for Subjects 9 and 10. These proved to be refractory to freezing.

Case 10, when first seen, had been continuously active for three months. Treatment had consisted of numerous local applications, including ethyl chloride, and incision of the burrows. The lesion had continued to progress, but was confined principally to the dorsum of the foot. The skin was considerably thickened from scratching and chemical irritation. Two intramuscular injections of 3.5 cc. of fuadin on successive days terminated the condition.

Case 9 had burrows on both feet and one buttock. After repeated applications of ethyl chloride had failed to clear the eruption over a nine-day period, fuadin was administered intramucularly as follows, in conjunction with ethyl chloride locally:

7-19-46	Fuadin	0.5 cc.
7-20-46	"	1.0 cc.
7-23-46	"	2.0 cc.
7-26-46	"	2.0 cc.
7-29-46	"	2.5 cc.
7-31-46	"	2.5 cc.
8-2-46	"	2.5 cc.

The larva became quiescent only after the final treatment.

On April 21, 1947, nearly nine months later, this patient returned with a recurrence of the eruption on one foot. Although two siblings (Cases 3 and 4) had shown the eruption at the time of the previous occurrence, no other member of the family now showed any infection. The patient denied having gone barefoot since the previous infection had cleared, and stated that the dog had not been allowed in the house. The lesion disappeared after the first application of ethyl chloride and has not recurred subsequently over a nine-month period.

Whether the recurrence was due to reinfection or retention of the larva in viable form is not clear. Rigdon[13] reported a similar recurrence in subjects who acquired the disease in Florida and then moved to Tennessee. He concludes, "Since the children left the coast of Florida following the infestation and lived in a section of the country in which cases of *ancylostoma braziliense* have not been observed, it appears most likely that they retained the original larvae in their tissue over a period of approximately ten months."

CREEPING ERUPTION CASES IN KANSAS

	Age	*Site of Infection*	*Terminated By*
1. A. R.	5	Foot (Puncture Wound)	Mercresin
2. G. D.	20	Foot	Mercresin
3. E. D.	7	Foot (Dermatophytosis)	Ethyl Chloride
4. V. D.	11	Foot	Ethyl Chloride
5. N. N.	2	Vulva	Ethyl Chloride
6. E. N.	13	Toe	Ethyl Chloride
7. F. N.	3	Buttock	Ethyl Chloride
8. B. P.	7	Foot	Ethyl Chloride
9. R. D.	5	Foot (Dermatophytosis)	Fuadin & Ethyl Chloride
10. J. K.	30	Foot	Fuadin & Ethyl Chloride

REFERENCES

1. Kirby-Smith, J. L., W. E. Dove and G. F. White. Creeping Eruption. Arch Derm. and Syph. 13:137, 1926.
2. White, G. F. and W. E. Dove. The Causation of Creeping Eruption. J.A.M.A. 90:1701, 1928.
3. Shelmire, B. Experimental Creeping Eruption from a Cat and Dog Hookworm (A. Braziliense). J.A.M.A. 91:938, 1928.
4. Hitch, J. M. Systemic Treatment of Creeping Eruption. Arch. Derm. & Syph. 55:664, 1947.
5. Wright, D. O. and E. M. Gold. Loeffler's Syndrome Associated with Creeping Eruption. J.A.M.A. 128:1082, 1945.
6. Mayhew, R. L. Creeping Eruption Caused by the Larvae of the Cattle Hookworm, *Bunostomum phlebotomum*. Proc. Soc. Exp. Biol. & Med. 66:12, 1947.
7. Hailey, H. Treatment of Creeping Eruption. Southern Med. J. 39:371, 1946.
8. Smith, D. C. The Treatment of Creeping Eruption with Sodium Antimony Biscatechol (Fuadin). J.A.M.A. 123:694, 1943.
9. Wilson, J. F. The Treatment of Creeping Eruption with Fuadin. J. Florida M.A. 30:425, 1944.
10. Rubin, S. S. Creeping Eruption. J.A.M.A. 124:668, 1944.
11. Dolce, F. A. and J. E. Franklin. Results of Treatment with Fuadin. Arch. Derm. & Syph. 52:174, 1945.
12. Blank, H. Use of Fuadin in Creeping Eruption. J.A.M.A. 123:989, 1943.
13. Rigdon, R. H. Creeping Eruption with Spontaneous Remissions and Recurrences. J. Pediatrics, 16:637, 1940.

Rocky Mountain Cancer Conference

The Second Rocky Mountain Cancer Conference, under the sponsorship of the Colorado State Medical Society, the Rocky Mountain Cancer Foundation and the Colorado Division of the American Cancer Society, will be held at Denver July 14 and 15, 1948. The conference is financed wholly by contributed funds and there is no registration fee.

The following speakers will take part in the program:

Colon and Rectum—Dr. Fred Rankin, Lexington, Ky.

Urinary Tract—Dr. Herman Kretschmer, Chicago, Ill.

Gastro-Intestinal—Dr. Morris Barrett, Bethesda, Md.

Brain and Nervous System—Dr. Alfred Adson, Rochester, Minn.

Bone—Dr. Cly H. Hatcher, Chicago, Ill.

Lung—Dr. Alton Ochsner, New Orleans, La.

Isotopes—Dr. John Lawrence, Berkeley, Calif.

Esophagus—Dr. Richard Sweet, Boston, Mass.

Laboratory Diagnosis—Dr. John Budd, Los Angeles, Calif.

General Practice—Dr. Archer C. Sudan, Denver, Colo.

The conference last year was widely attended and a number of Kansas physicians were present. A copy of the program for this year has been mailed to all members of the Kansas Medical Society. Those wishing additional information may write Second Rocky Mountain Cancer Conference, 835 Republic Building, Denver 2, Colorado.

TUMORS OF THE EYE AND ADNEXA

Tumors of the eye and adnexa usually can be diagnosed early. A thorough examination of ocular function is essential.

Tumors of the conjunctiva, caruncle and lids can be removed early for microscopic study.

Tumors of the orbit and lacrymal gland result in a noticeable swelling of the lid, a unilateral proptosis of the eyeball, or a displacement of the eyeball with diplopia in some field of rotation.

Tumors of the lacrymal pathway produce interference with tear drainage.

Tumors of the iris are visible. Careful measurements should be made of suspicious areas of pigmentation. If growth occurs it may be possible to remove an entire small tumor by iridectomy.

Intraocular tumors are treacherous. If located around the posterior pole of the eye there is an early disturbance in vision. If located in the periphery of the retina or choroid they may reach considerable size with remarkably little visual disturbance. Though there may be an early defect in the visual field the defect may overlap a portion of the normal field of the opposite eye, hence will not be noticed by the individual.

Retinoblastomas occur in infants, usually before the third year. The presence of a yellowish or white pupillary reflex, an enlarged eye, or a deviated eyeball is a suggestive sign.

It is difficult to differentiate a tumor from some forms of choroiditis and from retinal detachments.

Intraocular tumors tend to show increased intraocular pressure.

Prepared by Committee on Control of Cancer

PRESIDENT'S PAGE

To the Members of the Kansas Medical Society:

The problems of the Medical Society are your problems.

You are the representative of the Society in your community.

When responsibilities come to you, it is assumed that you will act for the Society.

In the year ahead "George" will not be carrying the ball. Responsibilities seek out and settle on shoulders capable of bearing a load. Those are your shoulders.

Officers, councilmen, delegates, and committee chairmen are mere essentials. The strength of the Society is measured in terms of interest of the individual members. The successes of the coming year will depend on You.

Undoubtedly there will be differences of opinion on more than one issue. That will indicate a healthy state. Your opinion is as valuable as that of any other member.

You can and should voice your opinion in and through your local Society. By doing so you will help to make it a most active unit in the parent organization. Such opinions should be transmitted through your councilmen or to your officers so they can be assigned to proper committees for study and execution.

No doubt our problems this year will resemble those of former years, even though they come to us in some other type of disguise. The wisdom of those who have formerly dealt with such issues, coupled with aggressiveness of the coming sages, will result in solutions for all problems.

Remember you are a very important part of the most important unit of the state Society, your local organization. No one but yourself can keep you out of such a position of importance.

In the months to come, if you will operate on this basis, the Kansas Medical Society will fulfill obligations and render worthwhile service.

Laurence S. Nelson and the presidents who preceded him have, with the help of such members as I address at this time, developed a heritage of which we can well be proud. It is therefore with sincere humility and a deep sense of responsibility that I appeal to you for your suggestions and your service.



President.

EDITORIALS

The Osteopaths Have Their Hearing

The law suit filed by Kansas osteopaths against the Governor and the Attorney General of Kansas was heard in the Federal Court in Topeka beginning April 19. After four and a half days of testimony the evidence was completed, and a decision may be expected approximately 90 days following the close of the hearing. Even this is preliminary because it is probable that an appeal will be taken to the Supreme Court of the United States, whichever way the decision goes.

The case was filed on October 30, 1947, by four Kansas osteopaths, B. L. Gleason, Larned; C. V. Moore, Medicine Lodge; O. R. Muecke, Pratt, and L. A. Moore, Herington, setting out in substance that the interpretation by the Kansas Supreme Court of the law governing osteopathy in Kansas "is unreasonable, arbitrary and capricious; void as against public policy, detrimental to the public health; discriminatory, and in violation of the Fifth Amendment and Section One of the Fourteenth Amendment to the Constitution of the United States."

The case was heard before a statutory three-judge Federal Court and the first hearing was held on December 9, 1947, at Topeka. Attorneys for the plaintiffs were Robert L. NeSmith, Wichita, and E. H. Hatcher, Topeka. The defense was handled by Edward F. Arn, Topeka, attorney general; Blake A. Williamson, Kansas City, special assistant to the attorney general, and Kirke W. Dale, Arkansas City, also assisting the attorney general and representing the Kansas Medical Society under its authority to enter the case amicus curiae. At this hearing the plaintiffs asked for an immediate injunction against the enforcement of the osteopathic practice act in Kansas. This failed. The defense asked for dismissal of the case, which also failed.

A second hearing was held on February 10, 1948, in Topeka, again before the three-judge court consisting of the Honorable Orie L. Phillips of Colorado, the Honorable Walter A. Huxman of Kansas, and the Honorable Alfred P. Murrah of Oklahoma. Prior to this hearing the complaint was amended to include, in addition to the four osteopaths previously named, three other osteopaths, Frank E. Loose of Newton, Robert L. Wright of Wichita and James B. Donley of Kingman. The plaintiffs declared that "this action is brought by these plaintiffs for themselves as individuals, and as individuals for the benefit of all osteopathic physicians and surgeons in the state of Kansas, constituting a class of persons having a common interest herein, but being so numerous as to make it impracticable and inconvenient to bring them before the court as plaintiffs in this suit." The amended complaint added the names of osteopaths not previously enjoined by a Kansas court and changed the case from an individual matter to a class suit.

On the occasion of the second hearing the plaintiffs contended that testimony should be introduced before the court to determine what was taught and practiced in schools of osteopathy as of the year 1913, when the Kansas law was passed. The defendants argued that such matters were for the state courts to determine and cited numerous cases in a brief submitted to the court where comparable questions were so judged. The defendants then asked for a judgment upon the pleadings on the grounds that no substantial federal question was involved, the question in the case was a problem for the legislature to determine rather than the court, and for six other reasons set out in the motion. The motion was denied and the trial set for April 19.

A vast amount of research preceded the actual hearing of this case, during which time the services of Clarence G. Munns were invaluable. A large library was accumulated including the writings of A. T. Still, founder of osteopathy, journals of the American Osteopathic Association from the years 1900 to 1920, catalogues of the various osteopathic schools and textbooks. From this literature hundreds of excerpts were selected, illustrating osteopathy's absolute rejection of drugs and its almost total denunciation of surgery. In the official writings of the osteopathic profession of that period, in resolutions of the House of Delegates of the American Osteopathic Association, in textbooks and in school catalogues, drugs were not only considered unnecessary but were poisons and of no benefit in the treatment of disease.

Illness was theorized to be caused by mechanical derangement of portions of the body, thereby interfering with normal blood supply. Treatment consisted of rearranging the offending members and, as the normal blood supply returned, the patient recovered without other aids or interference. On that theory virtually all surgery, with the exception of amputations in accident cases or the lancing of boils, is wasteful in that organs necessary for the maintenance of normal life are mutilated or removed. On one occasion the Board of Trustees of the A.O.A. voted unanimously that any school teaching drug therapy should be expelled from the approved list. Professional literature of the time abhors the use of surgery for appendicitis, for gall bladder disease and other disorders, claiming that those conditions could be successfully corrected by

manipulation. Where surgery was unavoidable, it was generally stated that the osteopath should refer the patient to a surgeon.

Witnesses for the plaintiffs contended they were taught drug therapy, but found it difficult to reconcile the writings of their own profession with statements made from personal recollection. In spite of their collective effort to prove the adequacy of their training, they were unsuccessful in establishing a familiarity with drugs other than the proprietary antiseptics such as soap, iodine and soda. In surgery they succeeded little beyond the point of establishing that surgery was done by a doctor of medicine and that upon occasion they sat in an amphitheater to witness such performances.

Testimony in behalf of the defendants was offered by doctors of medicine who, prior to a medical education, had taken a course in osteopathy. Some had practiced for a considerable period of time, but all, after seeing the deficiencies of osteopathic theory, began from the beginning in premedical schools and continued to become doctors of medicine. Several came from Kansas and others from various parts of the United States. Their statements were clear, concise, fearless. Osteopathy could not perform the miracles that were claimed and the training received in osteopathic schools was grossly inferior to a medical education. Physical equipment in the osteopathic schools was inadequate and clinical material scarce. As a result, osteopathic education in 1913 was almost entirely didactic and whatever applied to actual practice was obtained by accident or through observation from a distance.

Upon conclusion of the testimony the plaintiffs were allowed 30 days in which to prepare a brief of the case at hand. After that the defendants will be allowed 30 days to reply. A decision will be reached after that time, whenever the judges have reviewed the material, but it will be about 90 days after the conclusion of the hearing.

Many Kansas physicians gave hours of their time in assisting the attorneys in the preparation of this case, but none participated so entirely as did L. S. Nelson, M.D. As president of the Kansas Medical Society, he accepted the responsibility of that office and literally gave up the practice of medicine during this period to assist the attorneys for the defense in hundreds of ways. Both Dr. and Mrs. Nelson have rendered a service to medicine in Kansas that the Society could never repay. Dr. Nelson provided technical information on medicine and constantly referred to the primary objective in the case as one in which medicine was charged with a moral obligation to defend the people of Kansas against practitioners of the healing arts who are inadequately trained. Mrs. Nelson was a most gracious hostess, entertaining the wives of physicians who came to assist Kansas in this problem.

The American Medical Association was entirely cooperative and during the course of the trial made available to the attorneys for the defense two members of its legal staff and, in addition, provided the most valuable and deeply appreciated services of its legal counsel. Others also cooperated with Kansas in providing much assistance. This came in many forms and all of it was helpful, and most especially did the medical association of the state of Missouri cooperate.

This is not a local problem. An attorney representing the A.O.A. stated in open court that osteopathy in the United States would stand or fall on the result of this decision. They fought this matter on that ground. Perhaps the most direct statement concerning the case occurred during a conversation between a witness for the plaintiffs and a witness for the defense. The plaintiffs' witness insisted there was nothing personal intended in this law suit, that this was brought before the court only in the interest of the public. The defendants' witness answered, "If you were interested in the public health, if you had any but selfish motives in this matter, this law suit would never have been filed."

Cancer Research at University of Kansas

Kansas physicians will welcome the announcement that a large scale cancer research and teaching program at the University of Kansas School of Medicine was recently inaugurated and a department of oncology, the study of tumors, was established through a grant of $25,000 from the United States Public Health Service. It is hoped that the first year budget for the new department will approach $100,000.

Dr. Robert E. Stowell, former assistant professor of pathology at Washington University, St. Louis, will head the program and will serve as professor of pathology and oncology. At St. Louis he was doing cancer research under grants totalling $80,000 for the current year, $45,000 from the Los Alamos Division of the Atomic Energy Commission and other funds from the National Cancer Institute. Recently the Kansas Division of the American Cancer Society appropriated $18,000 to assist Dr. Stowell's research program. There is no state apropriation for the project at the University of Kansas School of Medicine, but it is possible that unexpended portions of the grants made to Dr. Stowell at St. Louis can be transferred to the University of Kansas.

The cancer research program will occupy ten rooms in the Hixon Laboratory of Research at the Medical Center. Dr. Stowell will bring at least



"... a considerable reservoir of unsuspected and unreported amebiasis has been brought back to the United States...."[1]

Urging clinicians and roentgenologists to be on the alert for signs of this disease, Wilbur and Camp[2] note the frequency with which the radiologist finds unsuspected lesions, ultimately diagnosed as amebiasis.

Diodoquin . . . high-iodine-containing amebacide . . . "is a valuable addition to the therapeutic remedies available for the treatment of this insidious and intractable disease."[3]

Diodoquin may be employed in acute or latent forms of amebiasis. Relatively nontoxic, well tolerated, Diodoquin does not produce unpleasant purgation and may be administered over prolonged periods.

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RESEARCH IN THE SERVICE OF MEDICINE

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1. *Editorial: The Problem of Amebiasis, J.A.M.A.* 134:*1095 (July 26) 1947.*
2. *Wilbur, D. L., and Camp, J. D.: Amebic Disease of the Cecum: Clinical and Radiological Aspects, Gastroenterology* 7:*535 (Nov.) 1946.*
3. *Morton, T. C. St. C.: Diodoquin for Chronic Amoebic Dysentery in Service Personnel Invalided from India, Brit. M.J.* 1:*831 (June 16) 1945.*

four research associates with him from Washington University and is looking toward a staff of six by July 1. That number will include physicists, biologists and biochemists.

Dr. Stowell is now moving equipment and materials worth several thousand dollars to the university, and within a year he expects to have the largest and most complete laboratory in the nation for the particular type of cancer research contemplated.

The research will center on an attempt to ascertain the cause of cancer through observation of the changes in chemical composition of cells. A second phase will be treatment of cancer by radiation, and a corollary of that will be an attempt to ascertain why radiation treatment sometimes succeeds and sometimes fails. In addition to the research it is Dr. Stowell's plan to aid in the coordination of cancer teaching of medical students, graduate students, and physicians in Kansas and in the Kansas City vicinity.

During the first year a microspectrophotometer will be built. It is an apparatus that utilizes ultraviolet light for study of the chemical composition of cells, and it will be used to determine changes within cells that might cause cancer and to study the effects of radiation on the chemical structure. The different substances of which cells are composed absorb the ultra-violet of "invisible" light in varying degrees.

"Many tumors show evidence of a disturbance of the clear proteins in cells," Dr. Stowell said. "Our work will be concerned with whether such disturbances are the cause of cancer. The microspectrophotometer should enable us to analyze cells to determine the amount and location of the chemical constituents."

The only microspectrophotometer of that type today is at the Institute for Cell Research in Stockholm, Sweden, and Dr. Stowell studied its construction and operation for nine months. The machine for the University of Kansas will be assembled by the physics and electrical engineering departments at Lawrence and will cost several thousand dollars since numerous optical parts are expensive. While that machine is being built, work will be continued by using a similar machine Dr. Stowell has already constructed to analyze chemical structure of cells through absorption of visible light.

Dr. Stowell, who is 33 years old, has been interested in cancer research since he began the study of medicine, and that interest received impetus when he worked with Dr. William Cramer, who pioneered in that field. Dr. Stowell held an advanced medical fellowship from the Commonwealth Fund of New York in 1946-1947 and during that time visited research laboratories in all western European countries and cancer clinics in eight European countries.

Annual Meeting Reports

A report of the official proceedings of the 89th annual session of the Kansas Medical Society, held in Wichita, May 10-13, will be published in the Journal for June, 1948. Although this issue is reaching members of the Society after the dates of the meeting, it was prepared in advance of the session.

Included in the report in the June Journal will be an outline of the session as a whole, the official proceedings of the two House of Delegates meetings, the names of the newly elected Society officers, a summary of the amendments to the constitution and by-laws as adopted, the names of new officers for specialty societies, and the results of the golf and marksmanship tourneys.

Academy Office in Kansas City

The American Academy of General Practice announces the opening of its national headquarters office in Kansas City, Missouri, at 231 West 47th Street. The Academy, being national in scope, will not take part in local medical affairs, but the establishment of its headquarters there will help identify Kansas City as a medical center, in the opinion of Mac F. Cahal, Academy counsel and acting executive secretary.

The headquarters office will carry on a program in elevating standards in the general practice of medicine and surgery, in undergraduate education and in expansion of facilities for postgraduate education of general practitioners. The Academy looks toward an eventual membership of 50,000 physicians.

Kansas City Southwest Pediatric Society

The Kansas City Southwest Pediatric Society announces a day's program for May 20 at Kansas City, Missouri. A clinical program and luncheon will be held at Children's Mercy Hospital, starting at nine and ending at four, and an evening meeting will be held at the University Club. Thirty-seven physicians will take part in the program.

Course in Chronic Chest Diseases

The American Trudeau Society, in conjunction with the University of Colorado School of Medicine, is offering a course in chronic chest diseases at Denver, July 19-31. A fee of $100 will be charged, half of which must be paid at the time of filing application for registration. Since only 40 will be accepted for the course, those wishing to attend should make application before June 14 to the American Trudeau Society, 1790 Broadway, New York 19, New York.

Examinations for Chest Physicians

Oral and written examinations for fellowship in the American College of Chest Physicians will be given at Chicago, June 17, 1948. Candidates for the examination may make arrangements through the Executive Secretary, 500 North Dearborn Street, Chicago 10, Illinois.

The 14th annual meeting of the College will be held at the Congress Hotel, Chicago, June 17-20. Several speakers from foreign countries will take part in the scientific program.

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2. Smoke less,
3. *Change to* Philip Morris!

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*Completely documented evidence on file.
**May we send you copies of these published studies:

Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32-241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.

MEMBERS

Dr. W. L. Wilmoth, Blue Rapids, has been appointed Marshall County health officer.

* * *

Funds were collected at Horton recently for a baby respirator for the Horton Hospital as a memorial to the late Dr. L. C. Edmonds.

* * *

Dr. L. S. Nelson, Salina, announces that his son, Dr. L. S. Nelson, Jr., is now associated with him in practice at the Salina Clinic. The younger Dr. Nelson was graduated from the University of Kansas School of Medicine and was recently released from duty with the Navy.

* * *

Dr. C. N. Petty, who has been practicing in Altamont for 51 years, was guest of honor at a community party given by the Altamont Lions Club recently.

* * *

Dr. and Mrs. M. F. Russell, Great Bend, are taking a six-weeks trip to South America and will attend a Rotary International convention in Rio de Janeiro.

* * *

Dr. Rolla L. Strobach has been named assistant director of the city-county public health department in Kansas City. He will head the department until a successor is appointed to take the place of Dr. Paul Lindquist, who resigned March 1.

* * *

Dr. Laurence A. Clark, who has been practicing in Larned during the past 18 months, has accepted a residency in surgery at St. Francis Hospital, Wichita.

* * *

Dr. M. R. Fitzpatrick, who recently completed a year's residency at Bethany Hospital, Kansas City, has announced the opening of an office for general practice in Kansas City.

* * *

Dr. F. R. Beiderwell, Garden City, announces that Dr. John C. Conroy and Dr. Harry A. Knauff are now associated with him in practice. Dr. Conroy will specialize in medicine and surgery and Dr. Knauff will limit his practice to eye, ear, nose and throat work. They will also serve the Syracuse community.

* * *

Dr. Hugh R. St. John, Concordia, announced recently that he is retiring from active practice. He was guest of honor at a meeting of the St. Joseph Hospital staff on the occasion of his retirement.

* * *

Dr. Ralph A. Light, Chanute, celebrated his 50th anniversary in the practice of medicine in March.

* * *

The Hertzler Clinic, Halstead, announces that Dr. E. R. Jacka, formerly of Ann Arbor, Michigan, is now a member of the staff and is associated with Dr. T. L. Foster in neuropsychiatry.

* * *

Dr. R. R. Clutz, Bendena, has been named Doniphan County health officer.

* * *

Dr. M. C. Marchand, Macksville, has gone to Orville, California, to practice. His practice in Macksville has been taken over by Dr. William A. Nixon, formerly of Kansas City.

Announcement has been made of the establishment of the Hertzler Research Foundation, Halstead, in honor of the late Dr. Arthur E. Hertzler. The foundation will be a non-profit corporation for medical research.

* * *

Dr. G. I. Thacher of Waterville, Dr. L. S. Nelson of Salina and Dr. Joseph Spearing of Columbus were recently reappointed to the Kansas State Board of Health by Governor Frank Carlson. They will serve for three year terms expiring March 27, 1951.

* * *

Dr. O. R. Cram, who has been practicing in Little River during the past 20 months, is now in Larned and is associated in practice with Dr. J. A. Blount.

* * *

Dr. M. L. Perry, who has been superintendent of the Topeka State Hospital for 30 years, announced his retirement last month. Dr. Paul E. Davis, superintendent of the Larned institution, replaces Dr. Perry at the Topeka hospital.

* * *

Dr. Ralph E. Jordan announces the closing of his office at Osborne on May 1. Since that time he has opened an office for practice in Holton.

* * *

Dr. William C. Menninger, Topeka, is the author of three books recently published, "Psychiatry in a Troubled World," "You and Psychiatry," and "Psychiatry, Its Evolution and Present Status." The books were released at the time Dr. Menninger took office as president of the American Psychiatric Association.

* * *

Dr. Joseph H. Spearing, formerly of Columbus, has announced the opening of an office in Harlan, Iowa.

* * *

Dr. Spencer H. Boyd, Topeka, is doing graduate work in gynecology at Western Reserve, Cleveland, and will later enroll at the University of California, Berkeley, to study gynecological surgery. Dr. John O. Kennedy, formerly of Kansas City, is caring for Dr. Boyd's practice during his absence and will later be associated in practice with Dr. Boyd.

* * *

Dr. A. P. Gearhart, Wichita, was guest of honor at a luncheon given recently by his medical associates and office assistants to celebrate his 50th anniversary in the practice of medicine.

* * *

Dr. J. W. Cheney, Wichita, recently completed 50 years of medical practice. He first opened an office in Kingman, after graduating from the Kansas City Medical College in 1898, and then began practice in Wichita 37 years ago.

* * *

Dr. W. T. Rich, Neodesha, is taking a postgraduate course in surgery at Columbia University, New York.

* * *

Dr. R. T. Nichols has been elected mayor of the city of Hiawatha.

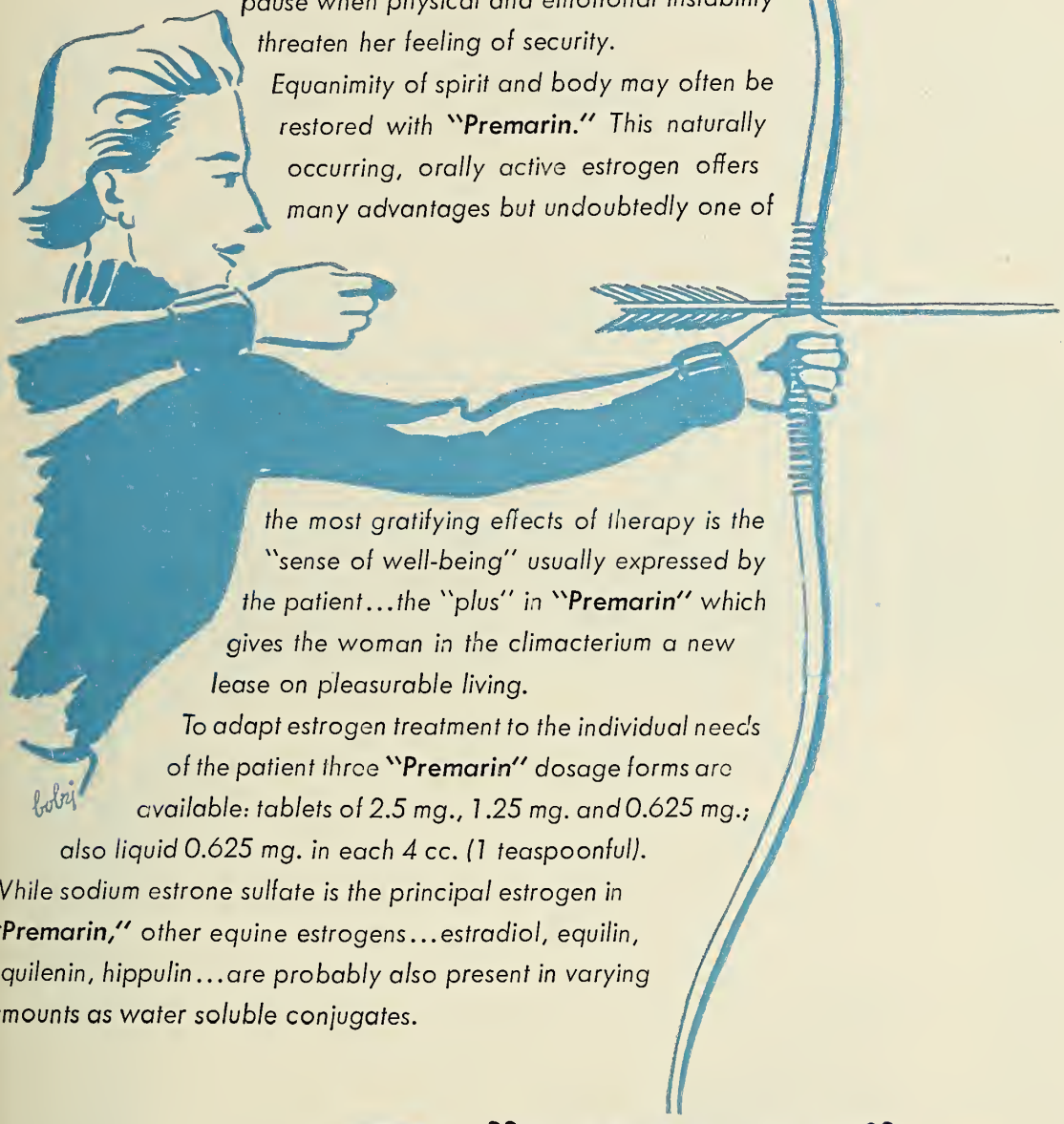
* * *

Dr. Charles H. Lerrigo, Topeka, executive secretary emeritus of the Kansas Tuberculosis and Health Association, was honored by the Kansas Public Health Association at its meeting in Topeka last month. He was selected as the individual whose contribution to public health in Kansas had been outstanding.

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*While sodium estrone sulfate is the principal estrogen in "**Premarin,**" other equine estrogens...estradiol, equilin, equilenin, hippulin...are probably also present in varying amounts as water soluble conjugates.*

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COUNTY SOCIETIES

The Butler County Medical Society met March 8 at the Hotel El Dorado. Dr. C. F. Taylor, director of the State Sanatorium for Tuberculosis at Norton, guest speaker, discussed diagnosis and treatment of tuberculosis.

* * *

Dr. Edward Tolstoi of New York, associate professor of clinical medicine at Cornell, addressed the Sedgwick County Society at a meeting held at the Broadview Hotel, Wichita, March 2. He spoke on "Modern Treatment of Diabetes and Diabetic Coma."

* * *

Members of the Geary County Medical Society were guests of the Geary County Dental Society at a dinner at the Junction City Country Club March 4.

* * *

The Edwards County Society met March 15 at Kinsley and elected the following officers: president, Dr. R. E. Schnoebelen; vice president, Dr. R. T. Unruh; secretary, Dr. F. G. Meckfessel; delegate, Dr. Unruh.

* * *

Dr. and Mrs. J. C. Ulrey, St. John, entertained the Stafford County Medical Society and Auxiliary at a covered dish dinner at their home March 15.

* * *

The Bourbon County Society was host to the Southeast Kansas Medical Society at a meeting held at the Fort Scott Country Club March 16. Dr. E. H. Hashinger, of the University of Kansas Medical Center, was guest speaker.

* * *

Dr. Marshall E. Hyde was named president of the Franklin County Society at a meeting held at Ransom Memorial Hospital, Ottawa, February 25. Other officers named are: vice president, Dr. Joe R. Henning; secretary-treasurer, Dr. L. N. Speer; delegate, Dr. C. W. Henning.

* * *

The Meade-Seward County Society and Auxiliary met together for a pot luck dinner at the home of Dr. and Mrs. A. L. Hilbig, Liberal, March 8.

* * *

Members of the Sumner County Society were hosts to the Tri-County Medical Society at a meeting held at Wellington March 25. Fifty-two physicians attended. A golf tournament was followed by a scientific program and dinner. Guest speakers from the University of Kansas School of Medicine presented the following program: "Physiologic Changes in the Burned Patient," Dr. David W. Robinson; "Urinary Tract Infection," Dr. William L. Valk; "Illustrated Presentation of Pathology of the Gastro-Intestinal Tract," Dr. Paul Schafer. Dr. Franklin D. Murphy, newly appointed dean of the medical school, discussed plans for the future of the school.

* * *

The Central Kansas Medical Society met at Russell March 25 for business and scientific sessions. Dr. Charles Dennie of Kansas City spoke on medical topics and Dr. Roger E. Phillips of Winter Hospital, Topeka, spoke on psychiatry.

* * *

The Geary County Medical Society entertained the Golden Belt Society at Junction City on April 1. During the afternoon the following scientific program was presented: "Convulsive Seizures," Dr. D. B. Foster of the Menninger Foundation, Topeka; "Rheumatoid Arthritis," Dr. Howard F. Polley, Mayo Clinic, Rochester, Minnesota; "Use of Curare in Conjunction with Anesthesia," Dr. Paul H. Lorhan, University of Kansas School of Medicine, Kansas City. A dinner and social meeting followed the scientific session.

* * *

A dinner meeting of the Cherokee County Society was held at the Columbus Country Club March 30. Dr. Paul Grubb of Galena was elected to membership. Dr. G. B. Athy, Columbus, and Dr. Richard Conard, Baxter Springs, presented case reports.

* * *

The March meeting of the Shawnee County Society was held on March 1 and was devoted to the problems of pediatrics. Dr. George Hermann of the University of Kansas School of Medicine spoke on replacement transfusion therapy for erythroblastosis fetalis, and Dr. Ramond Anderson, also of the University, discussed immunization procedures.

The group also met on April 5. Dr. Wendell Grosjean of Winfield spoke on "Cytological Diagnosis of Cancer from Sputum, Vaginal Secretions, and Urine," and displayed a number of colored illustrations.

* * *

The Northwest Kansas Medical Society met April 4 at the Cooper Hotel in Colby. A business meeting was followed by a scientific session. Dr. John Thurlow of Hays spoke on "Fractures of the Ankle," and Dr. Floyd Smith of Hays discussed "Spinal Anesthesia in Obstetrics." The group met with the Auxiliary for a social meeting later that evening at the home of Dr. and Mrs. J. L. Jensen.

* * *

A meeting of the Cowley County Society was held April 15 at Winfield. Dr. G. L. Norris, Winfield, spoke on "Congenital Heart Disease," and Dr. H. J. Brown, also of Winfield, presented a film on diseases of the ear, nose and throat.

Veterans Administration Agreement

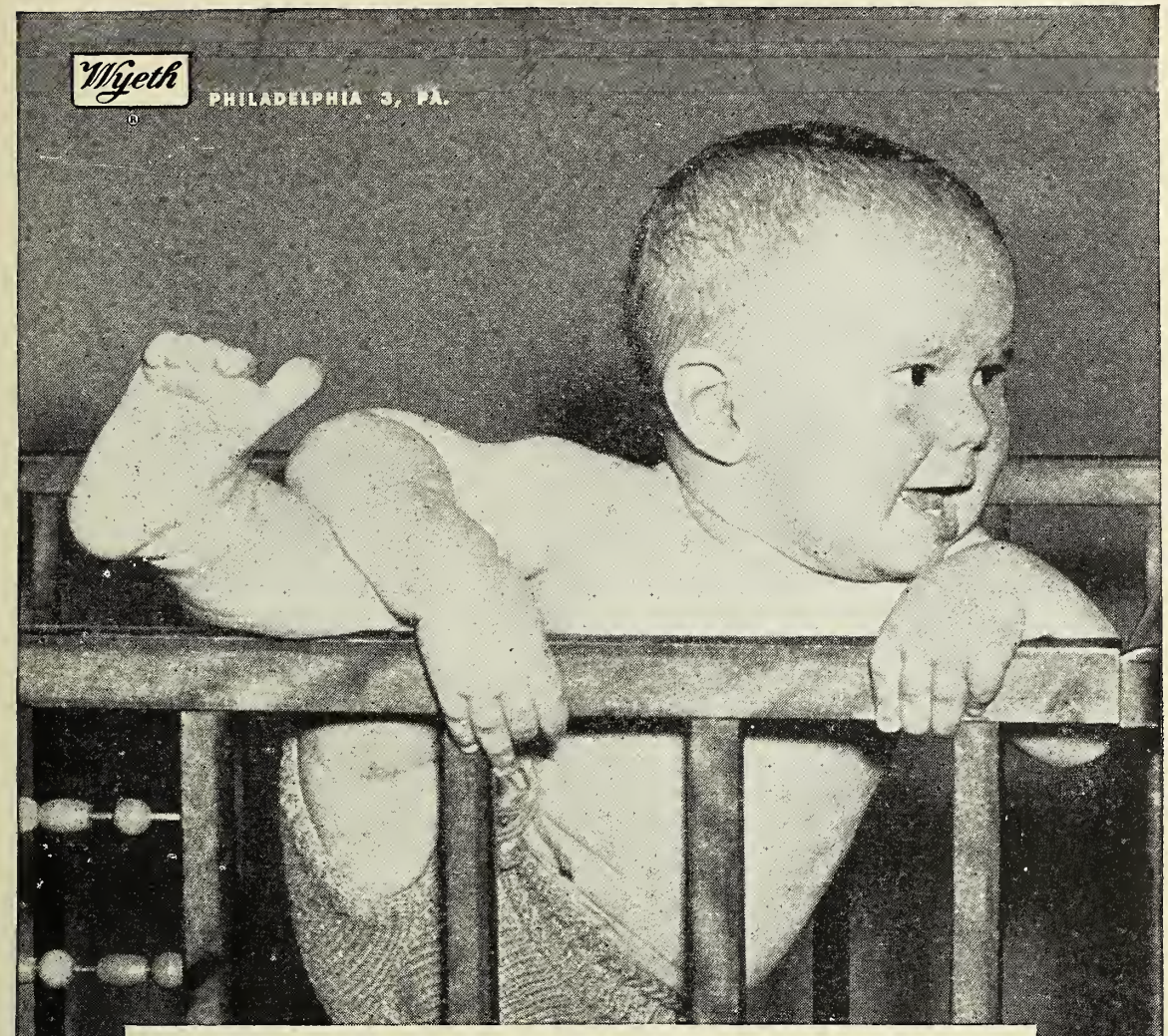
Editor's Note: The Veterans Administration has asked the Journal to give publicity to a recent release regarding the care of veterans and the prescribing of drugs. The release follows.

Under present law, out-patient treatment of veterans is limited to service connected conditions, except under certain specific circumstances such as Public Law 16 and females requiring hospitalization with the exception of pregnancy. However, the fulfillment of professional responsibility to eligible veterans necessarily involves medically adjunct, related and contributing conditions, to the extent possible under existing law.

Pharmacists must accept veterans' prescriptions which carry proper VA authorization from physicians. If any medication is later determined to be altogether inappropriate for the condition authorized for treatment, or not reasonably attributable to such service connected condition, it is within the authority of finance officers to refuse payment for such pharmaceutical services. This imposes a serious and unfair penalty upon pharmacists acting in good faith. It is obvious that the participating pharmacist is without means to evaluate the extent of authority of the physician in terms of the nature of the condition properly under treatment.

It is therefore requested that physicians be meticulous in ordering only such medications as can be considered reasonably appropriate for such patient in the light of the authorized service connected disability and contributing or related disabilities.

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The S-M-A formula is well suited to modification, as the physician may wish, for special feeding problems.



Narcotic Reregistration and Inventory

In accordance with provisions of the Harrison Narcotic Act, all practicing physicians in the United States are required to file annual applications for reregistry and inventories of narcotics on hand. To avoid penalty for delinquency, Kansas physicians must file applications and data with the Collector of Internal Revenue, Wichita, Kansas, before July 1, 1948, according to a recent announcement from Lynn R. Brodrick, collector.

Those who registered during the past year will receive blanks through the mail not later than May 17. The forms are being released 15 days earlier than in previous years so that those physicians who go on vacation in June may file before leaving their offices.

The first form, No. 678, application for reregistry, should be fully executed, showing name and address of the physician and his signature acknowledged by a notary public or verified by two witnesses. The one dollar fee for reregistry will be accepted in the form of a certified check, bank draft, or postal money order.

The inventory of narcotics on hand, Form 713, must be fully executed, signed, and acknowledged before a notary public.

The Collector of Internal Revenue urges prompt filing of this data. Penalties will be imposed on those physicians who fail to do so before the final date, July 1, 1948.

Council on Emergency Medical Service

The American Medical Association's Council on National Emergency Medical Service met in Chicago April 5 and 6 with 125 representatives of state societies, national health and disaster groups and the armed services present.

The council recommended the following six-point program: (1) One medical examination to cover screening, induction and assignment of selectees; (2) Hold "calling up" of medical officers until actual employment for medical care of patients is required; (3) Adoption by armed forces of VA medical program type of relationship with the civilian medical facilities and personnel within continental United States; (4) Give civilian medical reserve officers ranks equal to career men of the armed forces; (5) Continue medical scientific education and essential civilian medical and scientific research throughout national emergency; (6) Establish a National Emergency Medical Board as an agency of the National Security Resources Board.

In view of the probability of atomic or other highly destructive bombing, the council strongly affirmed the following: "It would be completely unsafe and a serious threat to our national war effort to needlessly lower the ratio of physicians to civil population anything like that of the one to 1,500 ratio reached during the recent war."

The council also adopted resolutions assailing the government's proposal to induct physicians by law into the armed services. Citing the fact that the medical profession met every demand for medical personnel during World War II without compulsion by law, the council said a provision for induction by law would be unnecessary and discriminatory.

Department of Bacteriology Changes

Dr. Lawrence W. Slanetz will become professor of bacteriology and head of that department at the University of Kansas on July 1, according to an announcement made recently by Chancellor Deane W. Malott. He will succeed Dr. Noble Sherwood, who has headed the department for 30 years and who has passed the age of mandatory retirement from administrative duties. Dr. Sherwood will continue to teach.

Dr. Slanetz has headed the department of bacteriology at the University of New Hampshire since 1932, and since 1938 he has also been bacteriologist of the state agricultural experiment station at Durham, New Hampshire. He has received recognition for his experiments on chemotherapy in treatment of tuberculosis and his research on fusiform bacteria.

DEATH NOTICES

WILLIAM YETTER HERRICK, M.D.

Dr. W. Y. Herrick, 77, who had practiced in Wakeeney more than 40 years, died March 9 after an illness of nine weeks. A graduate of Keokuk Medical College, Keokuk, Iowa, in 1901, he came to Kansas shortly afterward to open an office in Wakeeney. He was an active member of the Central Kansas Medical Society.

* * *

MANUEL JAY BROWN, M.D.

Dr. M. Jay Brown, 89, an honorary member of the Saline County Medical Society, died at Salina March 6. He was graduated from the Hahnemann Medical College in Chicago in 1882 and began practice in Salina more than 60 years ago. His practice was confined to eye, ear, nose and throat work.

* * *

ELMER J. NODURFTH, M.D.

Dr. Elmer J. Nodurfth, 56, who had practiced medicine and surgery in Wichita for more than 25 years, died at his home there April 2 after a short illness. He was a graduate of the University of Kansas School of Medicine with the class of 1919, and served his internship at St. Francis Hospital, Wichita, opening his office in that city after completing internship. He was division surgeon for the Missouri Pacific lines at the time of his death.

* * *

WILLIAM JENNINGS IRBY, M.D.

Dr. W. J. Irby, 55, president of the Butler County Medical Society, died April 8 as the result of injuries received in an automobile accident. A graduate of the Kansas City College of Medicine and Surgery in 1917 he had practiced in Benton for more than 28 years. He was a veteran of World War I.

* * *

ROBERT FINLEY CAMPBELL, M.D.

Dr. Robert F. Campbell, 54, who formerly practiced in Iola and was a member of the Allen County Medical Society, died at Phoenix, Arizona, April 19. He was graduated from the University of Kansas School of Medicine in 1921 and specialized in eye, ear, nose and throat work.

* * *

CARL JOHN CRAMM, M.D.

Dr. Carl J. Cramm, 72, a member of the Central Kansas Medical Society, died April 14. He received his medical education at the University of Louisville (Kentucky) School of Medicine, graduating in 1897. He opened an office in Russell in 1910 and had practiced there since that time. He had served as Russell County health officer for many years.



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ABSTRACTS

Antacid for Peptic Ulcers

A New Antacid for Peptic Ulcers. Manfred Kraemer. Postgraduate Medicine, 2:6, 431-437 (December) 1947.

The author has reviewed the progress made during the last two decades in the diagnosis of peptic ulcer, pointing out that peptic ulcer is a disease of the 20th century not only because of the rapid pace that we are living and probable higher incidence, but also because of better diagnostic facilities. He reviews the various types of treatment that have been employed including diathermy, x-ray, foreign protein, emetine hydrochloride mixed with foreign protein, streptococcus vaccine, histamine hydrochloride, amino-acids, anterior pituitary snuff, enterogastrone, diet, etc. He then reviews in detail the Sippy management of the ulcer patient with a critical evaluation of the various antacids employed, pointing out the side actions, especially the laxative or constipating effect of each.

In 1939 while searching for a better antacid he was impressed by the work of Howard Tiger, a water purification engineer, who had been using synthetic resins of the phenol formaldehyde condensates to remove acids from solutions. During World War II resins of increasing acid-absorbing powers were developed. The use of resins in other conditions was suggested.

In this paper the author discussed his results in 90 patients with duodenal ulcers treated for one to 15 months with resin. The resin used is a phenol formaldehyde condensation product. It is called Amberlite I R IV. In the volume basis they found its neutralizing power somewhat less than calcium carbonate but better than aluminum hydroxide mixtures. The resin was of the 200 mesh type, the acid absorption appears to be a surface phenomenon. Therefore, it is hoped that a finer mesh resin with a correspondingly higher acid absorbing power can be produced.

The author describes his regimen of management in detail including diet lists, etc., for the three types of ulcer patients as classified in his practice: (1) hospital patients with complications, (2) semi-ambulant ulcer patients, (3) quiescent ulcer patients.

He used the resin exclusively in the management of all three types of ulcer patients. His regimen of management follows the Sippy regimen for the most part, substituting resin in doses of about 0.75 gram for the antacid powder plus the free use of anti-spasmodics. (phenobarbital and atropine).

He reports that 85 per cent of these 90 patients have been kept symptom free on this ulcer management. None of the patients had any side effects as a result of the resin therapy. Particularly noticeable was the lack of complaints regarding constipation or diarrhea and also the freedom from bloating and gas. The systemic alkalization seen with soda was avoided since resin is not absorbed through the mucous membrane of the G I tract.

Resin is plentiful, easily produced and cheap, and as further improvements are made in this type of medication it will probably replace some of the older antacids now in use.—*H.F.S.*

* * *

Internal Fixation

The Use of Internal Fixation in Compound Fractures. Barbara B. Stimson. Amer. Jnl. of Surg. LXXIV:5, 697-704 (Nov.) 1947.

The problem of internal fixation in compound fractures is presented from the viewpoint of the group at the College of Physicians and Surgeons where extensive use has been made of this form of management. The importance of *rigid* fixation is stressed, and usually this implies a bone plate of adequate length with screws engaging both cortices plus one or more transfixing screws across the fracture site in the bone itself at right angles to those attaching the plate to prevent torsion strain. The initial treatment of the wound consists of surgical debridement, copious lavage, and in some instances primary closure. Infection is said to be minimized by the reduced trauma resulting from the fixation. A series of 65 compound fractures is cited and the author concludes, "Compound fractures of the shafts of femur and tibia, suitably selected and properly plated, are best treated by internal fixation."

NOTE: The reviewer had opportunity to observe some of this work in 1943 and was well impressed with the results obtained. It should be stressed, however, that a streamlined surgical set-up for just this work is largely responsible for the results and that if such facilities are lacking the indications for open operation will diminish. —*T.P.B.*

* * *

Diabetes Mellitus in Infants

Diabetes Mellitus in Infants Under One Year of Age. J. Schwartzman, M. E. Crusius, P. Bierne. Am. J. Dis. Child., 74:587-606 (November) 1947.

Five to 5.7 per cent of all persons with diabetes have the onset of their disease during the first decade of life. About seven out of 1,430 diabetic children occur before the age of one year.

The case reported is a white girl, normal delivery, weight seven pounds, 8½ ounces at birth. Treated for bronchopneumonia seven months later, from which she recovered in two weeks. Four weeks later treated for acute bronchitis from which she recovered in a few days. No urine specimens were taken at either time. At age eight months again had acute bronchitis, and routine urinalysis disclosed glycosuria and acetonuria. Blood sugar was 600 mg. per 100 cc. Infant was given 20 units of insulin (U.S.P.) which caused hypoglycemia which responded quickly to orange juice. The sugar was found to be fermentable in type, later proved to be glucose. Infant had several typical dextrose tolerance curves. The hepatic function was found to be normal. Bone studies including skull were all normal. While the patient was in the hospital, except for the one dose, no insulin was given. She was kept on an adjuvant diet conforming to her age and weight, and beginning a month later, the following diet was instituted; thiamine chloride, 30 mg., injected daily intramuscularly, and nicotinic acid, 100 mg., riboflavin, 10 mg., pyridoxine hydrochloride, 5 mg. and ascorbic acid, 100 mg. given orally. Infant weighed 15½ pounds at 11 months. At 13 months the infant suffered another severe infection but no insulin was given. In view of the probability that the trait was hereditary, a maternal aunt and cousin had diabetes, together with the glycosuria, the diabetic dextrose tolerance curves and the exacerbations during infection, it was felt that this child had diabetes mellitus.

The authors reviewed the literature on this subject. The earliest detailed report on infantile diabetes was made in 1789 by Rollo, and the first authentic report for infants under one year of age was made in 1850. There are 57 cases of diabetes mellitus in infants under one year reported in the literature to date of author's review. Heredity, infections and disorders of the central nervous system were

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1. Zondek, H.: The Diseases of The Endocrine Glands, ed. 4 (Second English), Baltimore, Williams & Wilkins Company, 1944, p. 421.

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the main etiologic factors, in the order given. Loss of weight, dry sensitive skin, irritability and/or crystalline deposits on the diapers were reported as earliest symptoms. The commonest autopsy findings were atrophy of the pancreas, with decrease in size and number of the islands of Langerhans, fatty degeneration of the liver. Following is quoted: "From the standpoint of the formulation of a prophylactic program, early detection of the disease is most important, so that proper care may be instituted. The following procedures would be advisable: (1) in all cases with a family history of diabetes: routine dextrose tolerance tests every two months for the first year and every six months thereafter, (2) during infections: daily urinalysis, with sugar tolerance tests at the onset and the end of the illness, (3) after any infection: routine urinalysis every two weeks for a period of three months, followed by a dextrose tolerance test at the end of that time.

Some may object to these additional precautionary measures on the basis that they require time and cause discomfort and added expense. However, in the profession in which saving of lives is of paramount importance, there can be no acceptance of any measuringrod used to restrain efforts in humanity's cause."—*D.R.D.*

* * *

Endocrine Aspects of Adolescence

Endocrine Aspects of Adolescence. J. P. Pratt. Am. J. Dis. Child., 74:507-513 (October) 1947.

Adolescence—the hyphen between puberty and maturity—presents a phase of life not too well understood. Ordinarily, the adolescent is not seen by a physician unless some disease or abnormality occurs, hence, the hiatus in our knowledge of normal adolescence.

The general pattern of behavior of the endocrine glands centers in the pituitary. The activity of the pituitary gland is itself controlled not only by the general hormones formed in response to pituitary action, but also by many additional influences.

The author cites some illustrative cases. A girl had constant fatigue and amenorrhea which was completely relieved by adequate nutrition. An obese girl who had repeated low B.M.R. and secondary anemia, relieved completely by adequate thyroid extract, iron and lower caloric diet. This relieved her of cycles of heavy menstruation and excessive irregular menses. One girl complains of flowing all the time, red blood count of 2,800,000, blood pressure of 96 over 65, B.M.R. of minus 26. Adequate thyroid and iron restored conditions to normal.

Examples of abnormal development, or lack of development, of the reproductive organs are not unusual. Generally the condition is discovered before adolescence, but frequently the best time for treatment is during this period of life. A case of pseudohermaphroditism is reported. The parents had been informed of the patient's deformity at birth but were advised to do nothing about it until after puberty. Two complaints were uppermost in her mind. First, although she had been reared as a girl and mingled with girls, she felt embarrassment when going to the locker room because of bulging due to abnormality of the external genitalia. She had a large clitoris, but particularly troublesome was the presence of the gonads in scrotal sacs. Her second complaint was hirsutism and a tendency toward masculinity. It was decided to have her remain a girl in spite of the fact that she was able to obtain sperm from the gonads, yet her predominating characteristics were feminine. The gonads were removed from the scrotum and placed in the abdomen in the position of the ovaries. The patient became more feminine and now is quite happy as a neutral.

No endocrine product is specific for the relief of dysmenorrhea.

Amenorrhea is ultimately due to failure in the relation of ovary and uterus. Disturbance of development can usually be detected by examination. The physician gives estrogens and progesterone which is seldom effective but while the patient is coming for "shots" week after week and month after month, nature may well make a favorable adjustment. This treatment gives the patient encouragement that something is being done. The same can be said for the management of hypermenorrhea.

Empirically, thyroid is the most useful of all glandular preparations in the treatment of gynecologic disorders of endocrine origins. The B.M.R. is desirable but not always reliable. The therapeutic test with thyroid may be used safely if only small doses and a few tablets are prescribed, thus necessitating the return of the patient for observation. Now and then a patient with a normal or high basal metabolic rate will tolerate considerable thyroid and another patient with a low basal may not tolerate any thyroid.

For many years gonadotropins have been used, but the enthusiasm for the preparation waned. Recent evidence, however, shows that when large enough doses can be tolerated favorable results may be anticipated.—*D.R.D.*

Pennsylvania Alumni Meeting in Chicago

Alumni of the University of Pennsylvania Medical School will hold a dinner meeting at the Lake Shore Club, Chicago, June 23, during the meeting of the American Medical Association. Alumni are asked to contact Miss Frances R. Houston at the University of Pennsylvania registration booth.

Congress of Physical Medicine

The 26th annual scientific and clinical session of the American Congress of Physical Medicine will be held at the Hotel Statler, Washington, D. C., September 7-11, 1948. All sessions will be open to members of the medical profession in good standing with the American Medical Association. Complete information may be secured from the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

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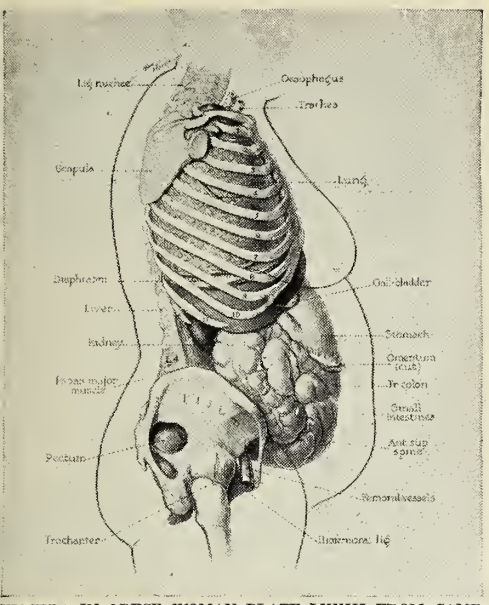
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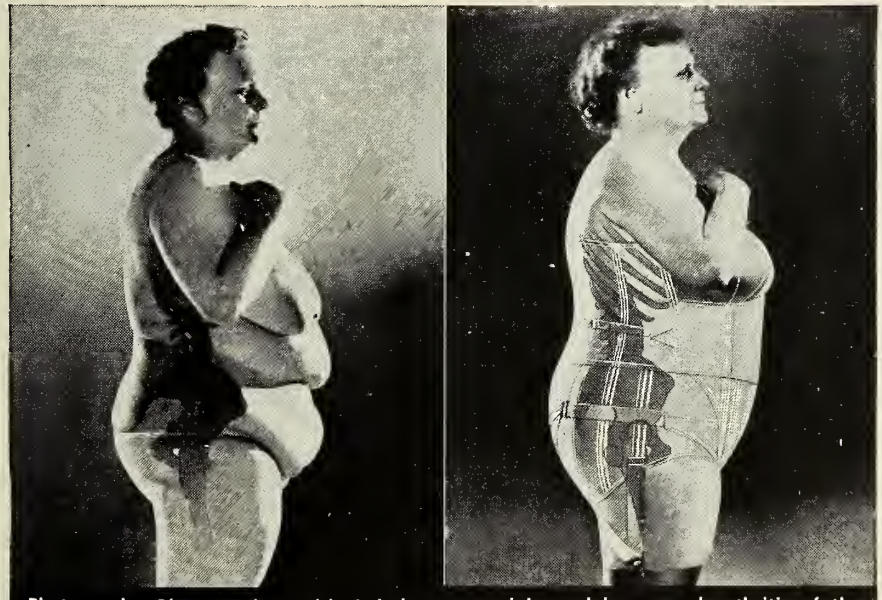
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BOOK REVIEWS

Treatment in General Practice (Sixth Edition). By Harry Beckman, M.D. Published by W. B. Saunders Company, Philadelphia. 1129 pages. Price $11.50.

Here is a textbook of medicine with emphasis on the greatest of medical arts, namely, therapy. Probably nowhere in English print is the equivalent of this work for clarity of description and guidance in modern treatment. The rationale, the adequacy, the paucity, and the controversy are all here in clear, concise, descriptive terminology that requires reading to be appreciated.

From the infectious diseases common to childhood, to geriatrics the work abounds in practical common sense medical observation. The discussion of treatment of infectious and tropical diseases alone renders the book a valuable addition to any library in these postwar days. Through it all is revealed the personality of the author to an extent rarely possible in medical literature. In spite of the necessarily technical and serious subject matter, the book is bright with human observation as well as practicality. This work is recommended for every man of medicine be he student or practitioner.—*E.M.F.*

* * *

A Manual of Clinical Therapeutics. By Windsor C. Cutting, M.D. Published by W. B. Saunders Company, Philadelphia. 712 pages, 30 illustrations. Price $5.00.

Designed and written for brevity and quick reference, this work comprises a remarkably comprehensive survey of the diagnostic and therapeutic problems met in clinic and office practices. Containing the latest possible clinical data as well as therapeutic drugs and procedures, it not only provides an ideal reference but also easy refreshment in the field of general medicine without time-consuming details. Indexed for rapid identity of material, sturdily bound and neat appearing, it will find extensive use on every physician's desk. It is especially recommended for the medical student in clinical years as well as for the general practitioner.—*E.M.F.*

* * *

Science in World War II. Advances in Military Medicine by American Investigators Working under the Sponsorship of the Committee on Medical Research. Published by Little, Brown and Company, Boston. Two volumes.

This is a summary of medical and research problems arising from the necessity of conducting a global war.

Precise and somewhat pedagogic, it covers the subjects to the extent that it has a place in medical society and medical school libraries. There is little clinical discussion that is not understood by the practicing clinician. Fitting tribute is paid to the efforts of the industrial scientist whose contributions were of inestimable value. The chief value of the work is from the historical standpoint. It does not impress this reader as being of high rating for a private medical library.

* * *

A Manual of Pharmacology. (Seventh Edition). By Torald Sollmann, M.D. Published by W. B. Saunders Company, Philadelphia, 1948. 1132 pages. Price $11.50.

Although the first edition of this book may have started out to be just a "manual," this edition is hardly within that category. The first line of the preface to the Seventh Edition is a good summary of the contents of this book. It states, "This Manual of Pharmacology again aims to furnish a rather comprehensive outline of current knowledge and conceptions of drug actions, especially from the point of view of their practical importance in therapeutics and toxicology."

The book is presented with a split page so reading is somewhat easier. Each drug is given a short historical approach as well as dosage schedule and therapeutic application. Unfortunately most of the dosage schedules are necessarily very conservative. For instance, the dosage for curare is given as 0.5 units per pound of body weight and this dosage is usually insufficient, but then rarely may be too much and so needs further qualification. Fortunately, many of our drugs previously standardized by biological assay have not been prepared in the pure crystalline form and are thus measured by weights which can be more accurate.

This book attempts to cover a field which is growing faster than new books can be published to keep up with new trends and new drugs. Any book that is published along these lines, e.g. pharmacology or therapeutics, is already a year or two behind the times when it is published. This book contains practically no information concerning various penicillin products based in oil, beeswax, and other vehicles. These products have made this drug readily available to the ambulatory patient in real therapeutic levels.

There seems to still be in the books of pharmacology much "chaff" consisting of drugs no longer used but included because they once were used and still might be used when you can't find anything else to give. Also many drugs which are only historic are included in fine type to make the book thicker and more expensive.

The book is highly recommended for any medical library which must be complete in this field but contains much more than is easily usable by the ordinary practicing specialist or general practitioner.—*W.O.M.*

* * *

Fundamentals of Psychiatry. By Edward A. Strecker, M.D. Published by J. B. Lippincott Company, Philadelphia. 325 pages. Price $4.00.

This book fulfills its avowed purpose of providing a source of indoctrination in the basic principles of psychiatry. The present fourth edition is testimony of its reception. Intended primarily for students and non-psychiatrists, it is simply and clearly written, well organized and surprisingly comprehensive. The author is eclectic in his approach, but there might be some disagreement about what he calls "dynamic."

Perhaps the most valuable aspect of the book is its emphasis upon the interweaving of psychiatry and general medicine, which is in keeping with the times. The book attempts to clarify psychiatric nosology by giving the "army classifications" but then proposes another nomenclature which may serve only to further confuse the beginner. This would seem to be out of place in a book intended as a psychiatric primer.

* * *

A Textbook of Clinical Neurology. (Sixth Edition). By Israel S. Wechsler, M.D. Published by W. B. Saunders Company, Philadelphia. 829 pages, 162 illustrations. Price $8.50.

The sixth edition of this authoritative and widely used neurological text book has been improved by the addition of new illustrations, the revision of chapter references, the inclusion of recent advances in knowledge of nervous diseases and a rewritten chapter by the author's brother on psychological diagnostic measures available for assessing the qualitative and quantitative personality and intellectual changes in organic brain disease.

Desirable improvements would be the deletion of cer-

Mothers

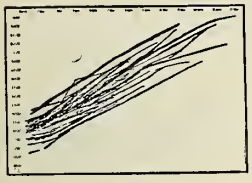
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tain outmoded and discredited therapeutic procedures, such as the vitamin E treatment of amyotrophic lateral sclerosis, periarterial sympathectomy and posterior root section for causalgia, and neuroma resection and chordotomy for painful phantom limb. The important concepts of asymptomatic neurosyphilis and active and inactive spinal fluids receive no attention in an otherwise excellent presentation of neurosyphilis.

Deleting the foreign language references (historically important but not readily available) and improving the completeness and accuracy of the well chosen English language references would increase the value of the book to the medical student and general practitioner, who will find it a clear, comprehensive and well balanced exposition of clinical neurology.

* * *

Gynecology with a Section on Female Urology. (Second Edition). By Lawrence R. Wharton, M.D. Published by W. B. Saunders Company, Philadelphia. 1027 pages, 479 illustrations. Price $10.

This is the second edition of Wharton's book (1947), the first appearing in 1943. This would indicate a reasonably wide acceptance of the original text.

The field of gynecology is covered thoroughly and the book is readable. It differs from most gynecologic texts in that it includes a section on female urology which makes it a desirable reference for the general practitioner or specialist. The urologic section shows the major change with the addition of a chapter on the anatomy and pathology of the female urethra and one on water cystoscopy. The latter does not pretend to be exhaustive in its coverage but gives a good general discussion of the various instruments and techniques utilized in this field. The chapter on air cystoscopy, reflecting Kelly's teachings, which appeared in the original edition is retained. A discussion of penicillin is added to the chapter on chemotherapy and mention of streptomycin is made. One chapter has been made up of general remarks concerning irradiation in gynecology, although no attempt has been made to go into details and technique.

Although the main part of the text reflects the author's beliefs and, presumably, the policies of the Hopkins group, he is faithful in presenting opinions of other authorities. Illustrations are frequent and commendable on their clarity. Procedures are outlined in adequate detail. It stresses basic principles sufficiently to be a worthwhile text for the student and is inclusive enough to be a desirable reference for the practitioner.—*D.E.G.*

Grants for Research in Heart Disease

United States and Canadian life insurance companies will give more than a half million dollars for research in heart disease during 1948, it was announced recently by Mr. M. A. Linton, chairman of the Life Insurance Medical Research Fund. The awards raise to $1,800,000 the total research subsidy provided through the fund since it was organized in December, 1945.

Thirty-one hospitals, medical colleges and special research clinics in 18 states and Canada will share $484,790 in the grants, and 14 individual doctors will receive $52,600 in postgraduate fellowships. All research is confined to diseases of the heart, arteries and other blood vessels which account every year for more than 45 per cent of all deaths at all ages in the United States and more than half the deaths at ages over 45.

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THE TREATMENT OF CONGESTIVE HEART FAILURE*

A. Carlton Ernstene, M.D.**

Cleveland, Ohio

Congestive myocardial failure is one of the most important problems in clinical medicine. It may result from any form of heart disease. Among the less common causes are cardiac conditions secondary to hyperthyroidism, myxedema, beriberi, severe anemia, and arteriovenous aneurysm. In this group the principal measures of treatment are directed toward correcting the underlying disorder. The majority of cases, however, are consequent to the more common types of heart disease. In these, treatment is not determined by the etiology of the condition but consists of well-established procedures which are applicable in all instances. Intensive research on the pathologic physiology of congestive failure during the past few years has resulted in the adoption of important changes in therapy which in turn have considerably improved the outlook of the individual patient.

Rest. A period of rest in bed is an essential part of the management of every case of congestive heart failure. Levine[1] has pointed out that the sudden enforcement of the conventional type of bed rest may have certain harmful effects. These are to be regarded as complications against which suitable precautions must be taken, and the possibility of their occurrence does not detract from the importance of rest itself. In patients with congestive failure, the recumbent position, through the effect of gravity, brings about a shift of edema fluid from the lower to the upper portions of the body. This often results in prompt diminution in the edema of the lower extremities, but, unless proper treatment has been instituted, edema may simultaneously appear or increase over the back, and the evidence of pulmonary congestion may become more apparent. Hydrothorax may develop for the first time. The recumbent position also facilitates the return flow of blood to the heart and, by favoring absorption of edema fluid into the blood stream, results in an increase in the circulating blood volume.[2] The load upon the heart is therefore augmented, and unless corrective steps are taken a decided increase in the degree of failure may result. These undesirable effects can be avoided by prompt and vigorous treatment with digitalis and diuretic drugs and, in patients with severe decompensation and considerable edema, by the use of shock blocks or kitchen chairs under the head of the bed. The latter measures were proposed by Levine, and their use readily convinces one of their value. Occasionally it may be advisable to allow the patient to spend the first few days in a comfortable chair with the feet dependent, but just as soon as improvement has been initiated, he should be transferred to bed.

It is our opinion that in every case of congestive heart failure of more than slight degree, bed rest should be continued for at least six weeks. If there is difficulty in the use of the bed pan and the patient is improving satisfactorily, the program may be modified after ten days or so by allowing the use of a commode or a daily trip to the bathroom, but no other exceptions should be made. After completion of the period in bed, gradually increasing activity is permitted, but precautions must be taken to avoid dyspnea and fatigue, and there must be careful observation for a gain in weight and any return of edema.

Digitalis. Digitalis remains the most valuable drug in the treatment of congestive heart failure. Every patient in failure should be completely digitalized, and the state of digitalization should then be maintained permanently. Digitalis leaf may be administered in pills, tablets, or capsules whose potency has been adjusted to conform to the international standard, or one may employ one of the purified glycosides, such as digitoxin. Digitoxin has the advantage of causing less gastric irritation

*Presented at the 89th annual session, Kansas Medical Society, May 10-13, 1948.

**From the Cleveland Clinic and the Frank E. Bunts Educational Institute.

than do preparations of digitalis leaf and of being susceptible to chemical assay. The former feature makes it possible to digitalize patients rapidly without causing nausea and vomiting. It has become our practice, in individuals who have not been taking digitalis previously, to begin treatment by the administration of 0.8 mg. of digitoxin, followed in six hours by a dose of 0.4 mg. This constitutes the average amount of the drug necessary to digitalize a patient.

When auricular fibrillation is present the ventricular rate furnishes the best guide as to the completeness of digitalization, provided the patient does not have hyperthyroidism. If, in the absence of thyrotoxicosis, the ventricular rate is still above 70 beats per minute on the day after beginning treatment, digitoxin is prescribed in doses of 0.2 mg. twice daily or digitalis in doses of 0.1 Gm. two or three times daily. This schedule is continued until the desired control of the ventricular rate has been accomplished or the first evidence of digitalis overdosage appears. The dose is then reduced to 0.2 mg. of digitoxin or 0.1 Gm. of digitalis on five to seven days of each week, and this maintenance amount is continued indefinitely.

When the heart rhythm is normal, the ventricular rate cannot be used as a guide to the degree of digitalization. Digitoxin, therefore, is given according to the initial schedule outlined above, and on the second day of treatment the patient is placed upon a maintenance dose of either digitoxin or digitalis. In large individuals a somewhat greater amount, such as digitoxin 0.2 mg. twice daily or digitalis 0.1 Gm. two or three times a day, may be continued for a day or two. Overdosage with digitoxin causes nausea, vomiting, and other manifestations of intoxication, just as do excessive amounts of digitalis. As in the case of digitalis, these symptoms probably are the result of a direct toxic effect of the drug on the heart.

It may be objected by some that rapid digitalization as accomplished by administering digitoxin according to the outline given is not necessary in the majority of cases of congestive failure. Most patients who have decompensation are seen before the condition has reached a far advanced stage, and in the past they have responded satisfactorily when the process of digitalization has been spread over a period of several days. However, if the maximum therapeutic effect of the drug is obtained more rapidly by the use of digitoxin, the patient begins to improve more promptly and becomes comfortable earlier. Furthermore, in individuals who have extensive edema, rapid digitalization helps greatly in preventing the possible untoward effects of suddenly instituting a program of strict rest in bed.

Except for the uncommon arrhythmia ventricular paroxysmal tachycardia, there are no contraindications for the use of digitalis when congestive heart failure is present. In patients who have auriculoventricular block of either first or second degree, however, and in those who have frequent ventricular premature beats, digitalization should be accomplished gradually and the electrocardiogram should be checked daily.

The oral route of administration is the one of choice for digitalis and digitoxin and can be employed in all but an occasional patient. At times, however, a condition is present which causes vomiting or prevents the taking of drugs by mouth, and intramuscular administration must be resorted to. Several preparations are available for use in this manner. For those which contain one cat unit of digitalis in two cc. of solution, an initial dose of 10 cc. can be given and can be followed in four to six hours by a second injection of the same amount. The process of digitalization is then completed by administering two cc. two or three times a day until the full effect of the drug is obtained or evidence of overdosage appears. Whenever digitalis is given by any route, it is desirable, of course, to avoid the production of toxic symptoms.

The absorption of digitalis from muscular tissue is no more rapid than is absorption from the gastrointestinal tract. In true cardiac emergencies, therefore, where a delay of even a few hours in securing the effect of the drug might mean the difference between a successful and a fatal outcome, intravenous administration of a digitalis preparation is indicated. Cases of this kind are uncommon. The preparations mentioned for intramuscular use may also be given by intravenous injection, and the dosage is the same by either route.

If one prefers, ouabain, digitoxin, or cedilanid may be employed. When ouabain is used, the initial dose is usually 0.5 mg., and this is followed by additional injections of 0.1 mg. to 0.25 mg. every four to six hours until a total of not more than 1.0 mg. has been administered. For digitoxin, intravenous dosage is the same as for oral administration, namely 0.8 mg. (4 cc.) followed in four to six hours by 0.4 mg. If cedilanid is employed, the usual schedule is 0.8 mg. (4 cc.) followed in four to six hours by a second injection of 0.4 mg. to 0.8 mg.

After one of these schedules has been finished, the process of digitalization is completed by oral administration of digitalis or digitoxin or, if this is not possible, by intramuscular injection of a suitable preparation in the manner already outlined. It is, of course, essential to be certain that patients to whom ouabain or digitalis preparations are to be given intravenously have not received digitalis during the preceding two weeks.

Diet. The most significant change in the treatment of congestive heart failure in recent years has been the introduction and general use of diets of restricted sodium content. Formerly it was customary to limit the fluid intake of patients suffering from cardiac decompensation and pay little attention to the amount of salt in the food. This has been changed entirely as a result of repeated demonstration that sodium retention, probably on a renal basis, is a cardinal feature of congestive failure and the most important factor responsible for water retention and the development of edema. There is quite uniform agreement today that the diet of patients with myocardial failure should contain less than 2 Gm. of sodium chloride per 24 hours. Restriction of the fluid intake is unnecessary and may even be harmful. The most satisfactory results are obtained when the patient takes between two and three liters of water daily, and whenever an individual is unable to drink this much, it appears advisable to administer sufficient five per cent glucose solution in distilled water by intravenous drip to bring the total fluid intake up to the desired level.

The preparation of a low sodium diet can be accomplished in the home without great difficulty if specific instructions are given. No salt is used in cooking, all salted foods are eliminated, and only salt-free bread and unsalted or washed butter are allowed. Canned foods to which salt has been added during processing and all foods prepared with baking soda or baking powder are prohibited. Medicines and proprietary preparations which contain sodium must not be used. A sodium-free salt substitute may be taken if desired.

Diuretics. Although many individuals who have congestive failure will recover satisfactorily when treated by means of rest, digitalis, and a low sodium diet without other measures, the additional use of diuretic drugs hastens improvement and more promptly restores the patient to a state of comfort. Their administration, therefore, is indicated in every case. The most effective preparations for routine use are the organic mercurial compounds, and of the members of this group mercuhydrin is the one most extensively employed at present. This preparation is equal to the other members in diuretic action and is less toxic. It can be given by intravenous or intramuscular injection, but the intramuscular route is preferred because of its greater safety. It was customary formerly to administer the drug at intervals of three to five days, but Gold and his associates[3] are of the opinion that such intervals between injections serve no useful purpose. They recently recommended daily administration until no further diuresis results and the patient's weight remains stationary. No undesirable effects were observed from this procedure in a large series of cases, and they are convinced, therefore, that daily injections may be given safely to all patients in whom the output of urine is within normal limits. An initial dose of 0.5 cc. is advised, and this is increased to 1.0 cc. and then to 2.0 cc. whenever the individual fails to lose three pounds in 24 hours. After all edema has disappeared and the daily injection fails to cause further diuresis and loss in weight, the interval between doses is lengthened gradually, and in favorable cases the drug is eventually discontinued.

When mercurial diuretics are employed, no advantage results from the simultaneous administration of ammonium chloride by mouth. The latter preparation is helpful at times, however, in doses of 4 to 8 Gm. daily, in preventing a return of edema after the patitnt has become ambulatory. In other patients, synthetic theophylline in doses of 0.1 Gm. three times a day is effective when given for the same purpose.

Morphine and Sedatives. Persons suffering from congestive failure of moderate or severe degree frequently have gone for many nights with little restful sleep, and this contributes considerably to their exhaustion and apprehension. In all such cases, morphine should be administered either when the patient is first seen or in the evening of that day. A night of comfortable sleep often produces a remarkable improvement in general condition and morale. In severe failure, the use of morphine may be necessary on the following two or three nights, but after this milder preparations such as one of the barbiturates usually suffice. Mental as well as physical rest is important, and in restless, worried, or emotionally tense individuals a mild sedative, such as a small dose of phenobarbital, is advisable two or three times a day during the early part of treatment.

Oxygen Therapy. The use of oxygen is unnecessary in the great majority of individuals who have congestive heart failure. When moderate or severe cyanosis is present, however, or when dyspnea persists with the patient well elevated in bed, oxygen often has a decidedly beneficial effect. It may be administered by means of an oxygen tent or by a nasal catheter or special mask. Oxygen therapy also is of value in combating the dyspnea and anoxia of certain complications of myocardial failure, such as pulmonary embolism, acute pulmonary edema, and pneumonia.

Venesection and Thoracentesis. In myocardial failure involving the right as well as the left ventricle, the peripheral venous pressure is increased approximately in proportion to the degree of decompensation. When failure is severe, the jugular

veins often are engorged to the angle of the jaw with the patient sitting upright. Venesection should be performed in such instances with the removal of 500 cc. or 600 cc. of blood, and the same procedure should be carried out in less advanced cases whenever digitalis therapy and the other measures mentioned previously fail to produce a satisfactory response. Venesection directly reduces venous congestion and diminishes the degree of dilatation of the heart. In favorable cases, the venous pressure remains low after having been reduced by the removal of blood, but in unfavorable situations peripheral venous congestion promptly returns.

Advanced congestive failure often is attended by the accumulation of large amounts of fluid in one or both sides of the thorax. The resultant compression of the lungs further reduces the already diminished vital capacity and by so doing increases the degree of dyspnea. Whenever pleural effusion of moderate or greater degree is present, therefore, the fluid should be removed as completely as possible by prompt thoracentesis.

Estimation of Clinical Progress. There are a number of guides which can be used in estimating the patient's response to treatment. Of these, the most important are relief from such symptoms as dyspnea, cough and malaise, the occurrence of diuresis, disappearance of clinical edema, clearing of the evidence of passive congestion in the lungs and liver, improvement in the vital capacity of the lungs, return of the peripheral venous pressure to normal, control of the ventricular rate when auricular fibrillation is present, and the course of the weight curve. It must be remembered that a considerably increased volume of extracellular fluid may still remain in the body after all apparent edema has disappeared and the patient has become comfortable. Convalescence cannot be considered satisfactory until this subclinical edema also has been eliminated. This is one of the reasons why Gold places such great emphasis on the patient's weight curve and is the main consideration for recommending the use of mercurial diuretics at whatever intervals and for whatever length of time are necessary to maintain the minimal weight and a relatively constant output of urine.

In conclusion, although the majority of patients who have had congestive heart failure eventually die of a recurrence of the condition or of some other complication of the underlying heart disease, the treatment of myocardial failure should not be a matter of pessimism. Management according to the principles which have been outlined will restore many patients to a useful and self-supporting state for long periods of time and will contribute greatly to the comfort of the less fortunate ones who cannot be helped beyond a life of semi-invalidism.

REFERENCES

1. Levine, S. A.: Some harmful effects of recumbency in treatment of heart disease. J.A.M.A. 126:80-84 (Sept. 9) 1944.

2. Perera, G. A., and Berliner, A. W.: Relation of postural hemodilution to paroxysmal dyspnea. J. Clin. Investigation 22:25-28 (Jan.) 1943.

3. Gold, H., *et al.:* System for routine treatment of failing heart. Am. J. Med. 3:665-692 (Dec.) 1947.

PERIARTERITIS NODOSA: REPORT OF A CASE WITH UNUSUAL FEATURES*

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Periarteritis nodosa, though essentially a morphologic entity, is being recognized clinically with increasing frequency. This is evident from the increasing number of reported cases in which the diagnosis has been made during the life of the patient.

Investigations during the past two decades have clarified the features of the histologic pattern of this disease; these have been reviewed and summarized recently by Moschcowitz.[1] Briefly, the lesion is essentially a necrobiotic one starting with fibrinoid degeneration of the collagen of the media of the middle and small sized arteries, progressing to a stage of inflammatory reaction with cellular infiltration and destruction of the internal elastic membrane. Other changes secondary to the above processes may occur, such as aneurysmal formation, hemorrhages, or thrombosis. In many cases lesions show a tendency to heal with fibrosis of the vessel wall and frequently recanalization.

In recent years interest in the disease has been focused on its etiology. Since the original description of this morbid process by Kussmaul and Maier,[2] many theories regarding its cause have been proposed. Currently, the most widely accepted view is that periarteritis nodosa represents an allergic tissue reaction. Though such a view was suggested earlier

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by other investigators[3, 4] and given added recognition by many clinicians,[5, 6] it was not until recently that the brilliant experiments of Rich[7, 8] and Rich and Gregory[9] established this theory on a firmer basis. These authors demonstrated the presence of periarteritis nodosa in patients suffering from serum sickness and in others who had received sulfonamide therapy. Subsequently, they were able to reproduce typical lesions in animals sensitized with foreign sera and with various chemical agents. Rich recently reported a case of periarteritis nodosa in which the cause was hypersensitivity to iodine.[10]

Approaching the problem from a somewhat different angle, Selye and Pentz,[11] working with rats, were able to produce lesions similar to those seen in periarteritis nodosa, malignant hypertension and rheumatic fever by feeding the animals with large doses of desoxycorticosterone acetate. The toxic effects of this corticoid were considerably increased by unilateral nephrectomy. The conclusions suggested by these authors is that periarteritis nodosa, rheumatic fever and malignant hypertension may be caused, at least partly, by an abnormal adaptive response of the adrenal cortex and represent diseases of adaptation.

Among the interesting issues raised by the newer knowledge of the morphology and pathogenesis of periarteritis nodosa is its relation to other syndromes in which vascular injury plays either a dominant or an incidental role. Thus, Moschcowitz,[1] viewing the problem biologically analyzes the disease against the larger background of rheumatic fever, glomerulonephritis and malignant hypertension. Selye and Pentz[11] believe there is a close morphologic and pathogenetic similarity among the syndromes. Proven cases of periarteritis nodosa associated with rheumatic fever and rheumatic heart disease have appeared in the literature.[12, 13] In recent experiments, Rich and Gregory,[14] by sensitizing rabbits with foreign sera, obtained lesions not only of periarteritis nodosa but also those resembling rheumatic infection in the human, including Aschoff bodies. In many instances lesions of malignant hypertension and glomerulonephritis are indistinguishable from those of periarteritis nodosa.

With the evolution of this broader concept of the problem the question has been raised whether disseminated lupus erythematosus may not be related to periarteritis nodosa. Teilum[15] recently proposed the term "pararheumatic diseases" to include periarteritis nodosa and disseminated lupus erythematosus and he, with others,[16] is of the opinion that the latter is also a disease of hypersensitivity. Baehr and Pollack[17] and Klemperer,[18] who have had extensive experience with these diseases do not concur in this view. After reconsideration of their own material of the past decade and critical examination of the work of others, they conclude that, while many cases of periarteritis nodosa are undoubtedly allergic in origin, the evidence for a similar etiologic background in disseminated lupus erythematosus is inconclusive. Furthermore, they accent the clinical and morphological dissimilarities between disseminated lupus, periarteritis nodosa and rheumatic fever and argue convincingly against the tendency to regard these syndromes under one category. From a review of the literature and consideration of the diverse points of view it would therefore appear that the etiological factors in periarteritis nodosa and its possible relationship to other so-called vascular diseases need further clarification.

Regarding the clinical aspects of periarteritis nodosa little has been added to our knowledge since the comprehensive reviews of Spiegel[13] and Harris, Lynch and O'Hare.[19] It is not the purpose of this paper to describe in detail the clinical features of this syndrome. The condition offers no pathognomonic signs or symptoms. This is understandable when one is aware of the dynamics of the basic pathologic process wherein the lesions may be widespread or localized, intensely necrotizing, slowly evolving or even healing. It is precisely this lack of overall design which is reflected in a variegated clinical picture. The tendency in the past to categorize the disease arbitrarily into various clinical types such as cardiac, renal, gastrointestinal, pulmonary, nervous system, cutaneous, etc., has been largely abandoned since in the majority of cases more than one organ or organ system is involved, giving rise to overlapping symptoms and signs. The following case illustrates this point:

A 51-year-old white married carpenter was first admitted to Veterans Administration Hospital, Topeka, Kansas, on June 26, 1946, soon after being struck by an automobile. He sustained linear fractures of the right temporal and parietal bones and rupture of the left ear drum. He was treated by conservative measures including penicillin and was discharged much improved July 22, 1946. Except for slight tinnitus of the left ear there were no neurological sequelae. The only noteworthy finding during his hospital stay was constant elevation of the blood pressure, the systolic readings ranging between 150 and 190 mm. of Hg and the diastolic between 100 and 120. On October 29, 1946, the patient was referred to the Ear, Nose, and Throat out-patient department because of pain in the left cheek and fever of about two weeks' duration. A diagnosis of left maxillary sinusitis was made and on October 31, 1945, antrotomy was performed with release of a copious amount of foul muco-purulent material. At about this time the patient first experienced pain

and stiffness of the legs, forearms, and hands. Because of continued low grade fever, pain in the limbs and weakness, he was readmitted to the Nose and Throat Service of the hospital on November 8, 1946.

Family History was non-contributory. *Past History:* There were no serious childhood illnesses. While in France during World War I he was gassed and hospitalized for a short period. He suffered for 25 years with periodic episodes of sinus trouble. In 1941 he was told that he had hypertension. He denied venereal disease and was a moderately heavy drinker of beer. There was no history of hay fever, asthma or other evidences of allergy.

On sulfadiazine and intramuscular penicillin therapy maxillary sinusitis gradually improved but fever, general muscle pains and weakness persisted. In addition to cramping and radiating pains in both calves there were numbness and tingling of the hands and fingers. By December 1 complete right foot drop was first noted. The neurologic and neurosurgical consultants concurred in the diagnosis of peripheral neuritis. No findings of organic central nervous system disease were noted. The laboratory findings during this period were not remarkable. Because of continued remitting fever, weakness, weight loss and generalized discomfort the patient was transferred to the Medical Service on December 6, 1946.

On physical examination the patient appeared chronically ill. Examination of the ocular fundi revealed mild A-V compression and some tortuosity of the small vessels but the discs were normal and there were no exudates or hemorrhages. Blood pressure was 146 mm. of Hg systolic and 110 diastolic. Examination of the heart disclosed no abnormalities except tachycardia. Clinical and x-ray examinations of the lungs were negative. The abdomen was soft; there was slight tenderness of the epigastrium; no masses were felt; liver edge was palpable two cm below the right costal arch; spleen was not palpably enlarged. There was moderate tenderness in the left costovertebral region. The left ankle was somewhat swollen but no redness or heat were noted. There was a fine tremor of the hands. Motor power was excellent throughout except in the right foot where dorsi-flexion was completely absent. Deep reflexes were active and symmetrical except for definite diminution of the right ankle jerk. No pathological reflexes were observed. Position sense was impaired in the toes of both feet but vibratory sense appeared fairly good. There were hypesthesia of the dorsum and soles of both feet and a right foot drop with a steppage gait. The Romberg sign was negative. Good pulsations were felt in the femoral and dorsalis pedis arteries on both sides.

Course in the Hospital: For approximately the next seven weeks the patient showed little change. There was continued fever with daily elevations to 100 or 101 degrees and progressive loss of weight. Weakness, irritability, neuritic pains in the lower extremities, parasthesias of the right forearm were prominent symptoms and varied in intensity from day to day. Blood pressure recordings, particularly the diastolic reading, showed constant elevation. Repeated chemical examinations of the blood were normal. Of many examinations of the urine only in rare specimens were a trace of albumin and a few white blood cells reported; 1-2 red blood cells and casts were present only on two occasions; specific gravity ranged from 1.007 to 1.025. Significant anemia was never found, the red blood cell count ranging from 4,500,000 to 5,200,000 and hemoglobin from 13.5 to 15.4 Gm. Sedimentation rate determinations (Wintrobe) varied from 21 to 42 mm per hour. During December, 1946, repeated white blood cell and differential counts were within normal range; in January, 1947, white blood cell counts became elevated, ranging from 10,000 to 15,100 with slight rise in the percentage of polymorphonuclear neutrophiles; on one examination eosinophiles reached seven per cent, their average being one to three per cent. Spinal fluid studies were normal. Agglutination tests for the typhoid, salmonella group as well as brucella and tularensis organisms were negative. Blood cultures as well as stool examinations were repeatedly negative. Serology tests for syphilis were negative. Liver and renal function tests were reported within normal limits. The electrocardiogram was normal.

Although penicillin had had no effect on the patient's febrile course during the first week of his admission, it was decided to give it another trial. Between January 3 and 16 he was given 300,000 units of penicillin in beeswax oil intramuscularly, daily. It was noted that neuritic symptoms, including pain and parasthesias became aggravated during this period, so that it was deemed wise to discontinue the drug. A diagnosis of periarteritis was made; this was confirmed by histologic study of gastrocnemius muscle biopsy which was performed on January 10, 1947.

Late in January the patient first complained of intermittent epigastric pain unrelated to meals. On January 30 this became severe; there was no hematemesis or melena but distention and nausea were prominent. Abdominal discomfort continued periodically until February 5, at which time he developed more distention, vomiting, and moderate tenderness and spasm of the left hypochondrium. During the next 24 hours there was a sharp rise in fever to 103 degrees with pulse rate of 124; the

white blood cell count was 22,400 with 84 per cent polymorphonuclear neutrophiles. A diagnosis of mesenteric thrombosis was made and the patient transferred to surgery where a resection of 15 cm of gangrenous jejunum was performed. On the day prior to operation, patient began to void deeply colored urine, varying from dark amber to port wine; this phenomenon continued intermittently for about four weeks. The post-operative course was stormy for the first few days followed by gradual improvement until February 24 when the patient had a copious hematemesis with collapse, hiccoughs, and delirium. For the next few days his condition was extremely critical but with oxygen therapy, blood and plasma transfusions and Wangensteen suction he recovered from this attack to stage a remarkable comeback. Abdominal pain disappeared, bowel function returned to normal, fever abated and appetite improved; however, right foot drop and sensory changes in the feet and hands were unaltered and he still complained of pain and parasthesias, though these symptoms were less prominent than heretofore. By the middle of March he had gained some weight and sufficient strength to enable him to be out of bed. For the first time in months he appeared jovial and expressed an intense desire to get well. On March 29 the patient was allowed home on a ten-day furlough.

On his return to the hospital April 6, there were no new complaints or physical findings except marked bilateral pedal edema. On April 15, abdominal pain, distention, nausea, and vomiting recurred. These symptoms gradually increased in severity during the next ten days. Treatment with enemata, antispasmodics, and Miller-Abbott intubation afforded little relief. Fever and white blood cell count again became elevated. X-ray studies confirmed the clinical impression of intestinal obstruction and on April 28, a second laparotomy was performed. Approximately three feet of gangrenous small bowel were resected; in addition to two perforations of the intestines, two old abscesses, well-walled off, were found in the left upper quadrant. Post-operative therapy consisted of penicillin, sodium sulfadiazine, Wangensteen drainage, in addition to oxygen and the usual supportive measures. By the fifth post-operative day, fever and pulse rate were somewhat lower and the abdomen was soft. That night the patient had a sudden convulsive seizure accompanied by signs of shock and coma which lasted 48 hours; on regaining consciousness, there were no apparent localizing neurological signs. On May 5, 1947, the patient developed atelectasis of the right lower lobe, marked abdominal distention and necrosis of a portion of the abdominal wound, with fecal fistula; the white blood cell count rose to 34,300 with 85 per cent polymorphonuclear neutrophiles. Death occurred during sleep on May 8, 1947.

Additional Laboratory Data: Red blood cell count and hemoglobin levels were within normal limits to the end. Leukocytosis was a more or less constant finding, even during the more quiescent periods; eosinophiles ranged from 0 to 2 per cent. Erythrocyte sedimentation rates showed constant acceleration. Urine examinations disclosed a trace of albumin only on rare occasions; specific gravity ranged from 1.010 to 1.030; red blood cells and casts were conspicuous by their absence; phenolsulfonphthalein kidney function tests showed normal dye output. Coproporphyrin and porphobilinogen, present in fairly high concentrations, accounted for the discoloration of the urine; uroporphyrin was absent. Liver function studies, which included the bromsulphalein retention and glucose tolerance tests and quantitative examinations of the urine for urobilinogen, were within the range of normal. Serum protein determination performed early in April when the patient developed peripheral edema revealed 2.6 Gms albumin and 2.8 Gms globulin per 100 cc of blood.

PATHOLOGICAL REPORT*

Examination of Surgical Material: The tissue removed by biopsy from the right gastrocnemius muscle included several arteries with the severe necrotic changes typical of periarteritis nodosa (Figure 1). There was endothelial swelling, fibrinoid degeneration in the media, and a heavy infiltration of leukocyes throughout the wall, most dense in the adventitia. The skeletal muscle fibers were pale staining, with inconspicuous longitudinal striations. A small peripheral nerve in the section (Figure 2) showed a striking proliferation of the perineurium and epineurium, associated with thickening and cellular infiltration of the small arterioles of the perineurium.

*The authors are indebted to Doctors M. G. Gichner and E. Corbett for the pathologic studies.

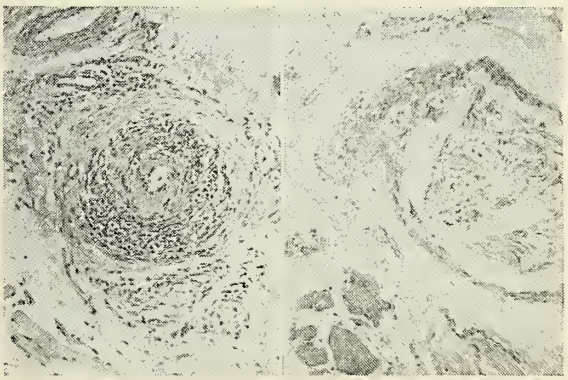


Figure 1. Vascular lesion of periarteritis nodosa in muscle tissue removed at biopsy.

Figure 2. A small peripheral nerve in the same tissue as in Figure 1. In addition to conspicuous thickening of the epineurium and perineurium, inflammatory changes are present in the small arteries.

The resected portion of jejunum was gangrenous with multiple focal abscess formation. Microscopically, the mucosa was completely necrotic and the remaining tissue was intensely hemorrhagic. The arterioles of the wall of the bowel and the mesentery were nearly all affected to some degree; many were undergoing acute necrosis and others were thick walled and fibrotic. Nearly all contained thrombi, and a few of these were recanalized (Figures 2, 3, and 4).

Autopsy Findings: The autopsy examination was performed eight hours after death. The body measured 5′ 6″ and weighed approximately 175 pounds. Muscular development was good except for atrophy of the muscles of the right hand and forearm. A recent left rectus incision was present, and the lower portion of it had broken down with formation of a fecal fistula.

The heart weighed 470 grams. Pale halos were seen about some of the smaller coronary branches. The right ventricle was 0.4 cm. thick and the left 1.5 cm. The valvular circumferences were within normal range, and no valvular or endocardial lesions were seen. Slight atheromatous changes were present in the aorta.

The right pleural cavity contained 1500 cc. of brown fluid and the pleural surfaces were coated with fibrin. The right lung weighed 500 grams and was collapsed except for a few distended alveoli at the apex. The left lung weighed 590 grams and appeared emphysematous. No lesions of the pulmonary or bronchial arteries could be seen grossly.

The peritoneal surfaces were covered by a thick fibrino-purulent exudate, and localized collections of pus were found between adherent loops of bowel, in both iliac fossae, below both leaves of the diaphragm and beneath the right lobe of the liver. There were also small walled-off collections of pus along the mesenteric attachment of the small bowel, marking multiple small perforations. In the jejunum, directly underlying the recent operative wound, there was an opening approximately three cm. in diameter continuous with the fecal fistula stoma of the abdominal wall. The jejunal anastomosis was intact. The smaller mesenteric arteries were finely nodular, with the most severe change near the intestinal attachment. The mesenteric root and the larger mesenteric vessels showed no gross changes. Dissection of the intestinal wall revealed many discrete areas of gangrene, as well as the generalized involvement of the peritoneal coat.

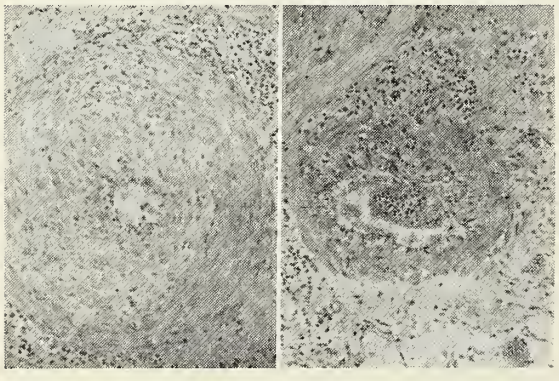


Figure 3. A thick walled vessel in the mesentery of the jejunum removed at operation.

Figure 4. A more active vascular lesion in a field adjacent to that described in Figure 3.

The liver weighed 1070 grams. The serosal surface was covered by exudate and the cut surface had prominent lobular markings. The spleen weighed 240 grams. It was soft and red, with indistinct Malpighian corpuscles. The pancreas weighed 70 grams and was quite firm, with a considerable increase of fibrous tissue apparent on cut section.

The right kidney weighed 260 grams and the left 200 grams. The capsule of each stripped easily, revealing a smooth surface with a few stellate telangiectases. The cut surfaces were not unusual, and the renal vessels were not noticeably altered.

The brain was not remarkable except for obvious nodular thickening of the vessels of the circle of Willis, and finer nodularity of the small arteries throughout the brain.

The other organs and tissues of the body showed no changes worthy of note.

Microscopic Examination: Heart: A few focal collections of small round cells were seen in the epicardium and myocardium, usually surrounding small branches of the coronary arteries. No lesions were seen in the walls of the vessels. The endocardium and myocardium were edematous and the myocardium of the left ventricle was moderately hypertrophic. Minimal nodular arteriosclerosis was seen in the main coronary branches and in the aorta.

Lungs: The pleura of the right lung was covered with fibrin and the parenchyma was atelectatic. The left lung was emphysematous. There was a minimal serous exudation in both lungs and both contained a peribronchial lymphocytic infiltration and purulent exudation in the bronchi. Vascular lesions were confined to the medium sized arteries and were infrequent and of variable appearance, but typical of periarteritis nodosa. The more florid lesions were characterized by intimal proliferation, with or without thrombosis, eosinophilic or fibrinoid degeneration of the collagen of the media, and infiltration of leukocytes of all types throughout the wall. In the more quiescent or older lesions, the lumen of the vessel was greatly contracted, the muscular and elastic portion of the coat replaced by poorly staining

fibrous tissue, and the thickened adventitia crowded with lymphocytes.

Liver: The capsule was swollen and covered by a fibrino-purulent exudate. In several areas, the capsule had a deeply eosinophilic hyaline appearance, resembling but not identical with fibrinoid degeneration. Many leukocytes, particularly lymphocytes and eosinophilic granulocytes, were scattered through the capsule, and in the portal spaces of the hepatic lobules these cells were quite dense. The hepatic arterioles throughout the liver were thickened, the endothelium was hyperplastic, and the walls contained numerous leukocytes. Hepatic cells at the periphery of the lobules exhibited both atrophy and regeneration.

Pancreas: Several of the capsular arteries were necrotic and thrombosed (Figure 5). The acinar tissue was distorted by an increase of interlobular fibrous tissue.

Spleen: Except for being covered by the ubiquitous exudate, the capsule showed no change. The central arteries of the Malpiphian bodies were swollen and infiltrated with cells, and a few were thrombosed. The splenic sinusoids were crowded with leukocytes.

Adrenal: The capsular arteries resembled those in the pancreas. There was an accompanying patchy fibrosis of the cortex.

Kidney: The tubules were atrophic and occasional areas of regeneration were seen. Casts were infrequent and the tubules generally contained cloudy pink material. The glomerular tufts were rather shrunken and cellular, and were surrounded by fluid containing a small amount of stainable protein. Vascular lesions were uncommon, and those found were in the arteries at the corticomedullary junction. Swelling of the media was the most conspicuous change, and occasionally a light cellular infiltration was present (Figure 6).

Intestinal tract: The same gamut of vascular lesions was seen in the small intestine as was present in the jejunal tissue removed at operation. The esophagus was superficially ulcerated.

Mesentery: Most of the small and middle sized arteries presented one stage or another of periarteritis. Many of the lesions appeared to be healed and inactive.

Lymph nodes: The only changes seen were diffuse fibrosis and occasionally hyperplasia of the reticular tissue.

Brain: The cortex was edematous. The walls of the small arteries here and throughout the brain were swollen, almost to the point of obliteration in some instances, but no cellular infiltration or necrosis was noted. The large cerebral arteries were sclerotic, with a few areas of calcification in the intima.

Summary and Comment: Vascular lesions typical of the various stages of periarteritis nodosa were found in the liver, lungs, pancreas, spleen, adrenals, intestinal tract, mesentery, and brain. Few of these lesions were as florid as those observed in the surgical biopsy material, and healing was occasionally complete. The fibrosis and scarring in the pancreas and adrenals probably represent healing of areas of infarction supplied by thrombosed vessels. The minimal involvement of the kidneys, and the absence of definite periarteritic lesions in the heart is noteworthy.

DISCUSSION

One can discern two phases in the clinical course of this patient's illness. The first consisted of a prodromal period characterized by suppurative maxillary sinusitis followed by muscle pains, fever, weakness, and signs of peripheral neuritis. It was the combination of the latter, with fever, weakness, and wasting, which suggested to one observer as early as December 4 the diagnosis of periarteritis nodosa. With the recent report of Kolb and Gray[20] in mind, it was thought by some that the peripheral neuropathy might have been caused by penicillin; it is to be remembered that the patient had received 1,800,000 units of penicillin soon after his admission and that the first evidence of neuropathy developed one week later. However, the persistence of the condition despite discontinuance of the drug and the report of muscle biopsy resolved this, as well as other problems of differential diagnosis. That peripheral neuritis is a common occurrence in periarteritis nodosa is well known. It can manifest itself by either sensory or motor changes, or both, and may involve either a single or all extremities. Its features have been well described by Wechsler and Bender.[21]

The second and final phase of the clinical picture which developed about three months from the initial illness was dominated by intestinal involvement. Its manifestations, insidious in onset, developed swiftly

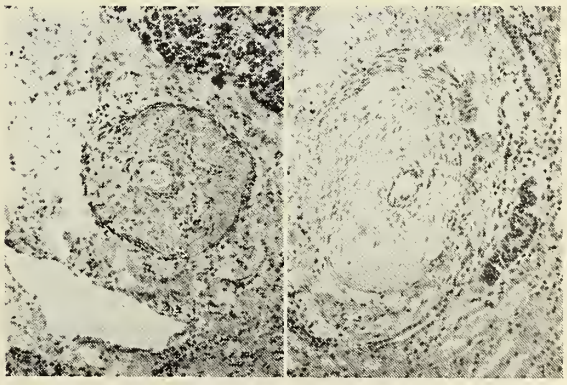


Figure 5. An interlobular artery in the pancreas.
Figure 6. One of the rare lesions seen in the kidney. Tubular regeneration may be seen to the right of the vessel.

to a climax with infarction, gangrene, and volvulous of the small bowel. Operation was followed by recovery which was interrupted on the 18th postoperative day by an episode of severe gastric hemorrhage and shock. Again there was rapid recovery followed by a quiescent period of about a month's duration. Subsequent recrudescence of the process in the intestinal tract caused death. In retrospect, the period between March 15 and April 15 was most interesting. Rapid and striking improvement at this time was evident not only by the patient's well-being, but by the return to normal of temperature, pulse rate, and gastrointestinal function, as well as increased weight and strength. The sudden change for the worse was just as dramatic. The question as to what are the determinants of activity, quiescence, or healing in the lesions of this morbid process remains as wide open as some of the other little known aspects of its pathogenesis.

Finally, it is worthy of comment that the disease which has so notorious a predilection for the kidneys, should have largely spared these organs in our patient. This assumes added significance in view of the five years' history of hypertension and its persistence during the entire hospitalization. Yet at no time did the microscopic and chemical examinations of the urine and blood indicate renal disease or impaired function; nor had changes in the ocular fundi progressed beyond the minimal findings recorded on the initial examination. It seems reasonable to explain this by the relatively rare vascular involvement of the kidneys as observed on histological examination.

SUMMARY

The clinical and pathological features of a case of periarteritis nodosa are presented. The case was characterized by intense involvement of the intestinal tract with but inconspicuous changes in the kidneys despite severe and persistent hypertension. The current views regarding the etiologic and pathogenetic factors of periarteritis nodosa are discussed.

BIBLIOGRAPHY

1. Moschcowitz, E.: Essays on the Biology of Disease. Jr. Mt. Sinai Hosp., 12:1054, Mar.-Apr. 1946.
2. Kussmaul, A. and Maier, R.: Ueber eine bisher nicht beschriebene eigenthümliche Arterienerkrankung (Periarteritis Nodosa), Deuts. Arch. f. klin. Med. 1:484, 1866.
3. Gerlach, W.: Studien über hyperergische Entzündung, Virch. Arch. f. path. Anat. 247:294, 1923
4. Gruber, G. B.: Zur Frage der Periarteritis nodosa, Virch. Arch. f. path. Anat. 258:441, 1925.
5. Cohen, M. B., Kline, B. S. and Young, A. M.: The Clinical Diagnosis of Periarteritis Nodosa, Jr. A.M.A. 107:1055, Nov. 7, 1936.
6. Rackemann, F. M. and Greene, J. E.: Periarteritis Nodosa and Asthma,, Trans. A. Amer. Phys. 54:112, 1939.
7. Rich, A. R.: The Role of Hypersensitivity in Periarteritis Nodosa, Bull. J. Hopk. Hosp. 71:123, 1942.
8. Rich, A. R.: Additional Evidence of the Role of Hypersensitivity in the Etiology of Periarteritis Nodosa, Bull. J. Hopk. Hosp. 71:375, 1942.
9. Rich, A. R. and Gregory, J. E.: The Experimental Evidence that Periarteritis Nodosa is a Manifestation of Hypersensitivity, Bull. J. Hopk. Hosp. 72:65, 1943.
10. Rich, A. R.: Hypersensitivity to Iodine as a Cause of Periarteritis Nodosa, Bull. J. Hopk. Hosp. 77:43, 1945.
11. Selye, H. and Pentz, E. I.: Pathogenetic Correlations between Periarteritis Nodosa, Renal Hypertension and Rheumatic Lesions, Canad. M.A.J. 49:264, Oct. 1943.
12. Friedberg, C. K., and Gross, L.: Periarteritis Nodosa associated with Rheumatic Heart Disease, Arch. Int. Med. 54:170, Aug. 1934.
13. Spiegel, R.: Clinical Aspects of Periarteritis Nodosa, Arch. Int. Med., 58:993, Dec. 1936.
14. Rich, A. R. and Gregory, J. E.: Experimental Evidence that Lesions with the Basic Characteristics of Rheumatic Carditis Can Result from Anaphylactic Hypersensitivity, Bull. J. Hopk. Hosp. 73:239, 1943.
15. Teilum, G.: Pathogenetic Studies on Lupus Erythematosus Disseminatus and Related Diseases, Acta Med. Scandin. 123:126, 1946.
16. Fox, R. A.: Disseminated Lupus Erythematosus: Allergic Disease? Arch. Path. 36:311, Sept. 1943.
17. Baehr, G. and Pollack, A. D.: Disseminated Lupus Erythematosus and Diffuse Schleroderma, Jr. A.M.A., 134:1169, Aug. 2, 1947.
18. Klemperer, P.: Diseases of the Collagen System, Bull. N. Y. Acad. of Med. 23:581, Oct. 1947.
19. Harris, A. W., Lynch, G. W. and O'Hare, J. P.: Periarteritis Nodosa, Arch. Int. Med. 63:1163, June 1939.
20. Kolb, L. C., Comm. (MC) U.S.N.R. and Gray, S. J., Lt. Comm. (MC) U.S.N.R: Peripheral Neuritis as a Complication of Penicillin Therapy, Jr A.M.A. 132:373, Oct. 12, 1946.
21. Wechsler, I. S. and Bender, M. B.: Neurological Manifestations of Periarteritis Nodosa, Jr. Mt. Sinai Hosp. 8:1071, Jan.-Feb. 1942.

THE PROBLEMS OF ANESTHESIA FOR THE TUBERCULOUS PATIENT

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The problems of anesthesia for the tuberculous patient relate not only to the condition of the patient but very often to the superimposed hazard of chest surgery.

The tuberculous patient is usually in poor general health. He has been confined to bed for many months, is debilitated, has poor muscle tone and very low blood pressure and often is suffering from nutritional deficiencies. He usually has a moderate to marked secondary anemia and withstands loss of blood poorly. He may have damage to kidneys, liver or heart from prolonged absorption of toxic material. His basal metabolic rate is often elevated, which means a need for increased premedication or anesthetic, or both. He has a deficient respiratory exchange, resulting in limited absorption of oxygen and of the anesthetic agent. He has marked intolerance to even slight degrees of anoxia. Whether or not he is producing large amounts of sputum, he does have excessive bronchial secretions and a hyperactive cough reflex.

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Vital capacity is a less accurate index of the respiratory efficiency than is minute volume. Another good indication is the reaction of the patient to exercise on the ward and to breath-holding tests.

Surgery upon the chest is often shocking, particularly if ribs are removed, and even more if the pleura is opened. White and Buxton report average blood loss during thoracoplasty of 500 to 700 cc., during pneumonectomy of 1458.8 cc. The position of the patient on the table imposes a severe handicap. It can be shown by fluoroscopy that movement of the diaphragm (and consequently expansion of the lung) on the dependent side of a patient in the lateral decubitus is greatly restricted. Also, this position favors contamination of the sound lung by secretions from the infected one. The combination of lateral position, lowering the head, and changes in the intrathoracic pressure tends to favor the occurrence of interstitial pulmonary edema. The Trendelenburg position is used in many clinics because it favors venous return and improves the cerebral circulation. However, it is of doubtful value in preventing air embolism and in promoting drainage of secretions into the pharynx, two claims which are commonly made for this position. It has been shown that placing the patient at an angle greater than 20 degrees from the horizontal inhibits pulmonary exchange, whereas the angle must be at least 35 degrees in order to cause secretions to drain into the pharynx rather than into the dependent lung.

The presence of open pneumothorax, which is often required for the surgical treatment of tuberculosis, is in itself productive of certain complications for which the anesthesiologist must be on the alert. Of these the most dangerous is mediastinal flap, its principal danger being constriction or displacement of the large veins, decreasing the return to the heart. Mediastinal flap does not occur under spinal analgesia and may be reduced to a minimum under general anesthesia by positive pressure and by supplying an atmosphere rich in oxygen. Collapse of the lung on the operative side decreases oxygenation and paradoxical respiration, which is a frequent concomitant of open pneumothorax, further decreases oxygenation. Retractors or packs pressing on a lung having an intact blood supply, interfere with gaseous exchange, resulting in hypoxemia and hypercarboxemia. A retractor which partially occludes a bronchus exerts a ball-valve action, causing the lung to balloon out but not permitting elimination of CO_2.

Manipulation about the hilum produces vagovagal reflexes resulting in irregular respiration, sudden periods of apnea and circulatory disturbances. These vagal syndromes are of two general types: (1) cardioinhibitory, characterized by slow heart and respiration with increased pulse pressure, and (2) direct effect on the heart, with arrest or fibrillation, rapid decline in blood pressure, rapid weak pulse and shallow respirations.

Bearing in mind these problems of chest surgery in the tuberculous patient, one should choose an anesthetic to meet the following requirements as nearly as possible: (1) to abolish all pain or discomfort and provide a rapid pleasant induction, (2) to minimize shock and cause the least possible disturbance of circulation and respiration, (3) to cause no irritation of the respiratory passages, (4) to permit respiration which is quiet and yet adequate for complete oxygenation, (5) to abolish the cough reflex and yet permit its early return, (6) to be responsible for a minimum of immediate dangers and postoperative complications. Following is a brief consideration of each of the agents and methods in the light of these requirements.

Ether is used with great success in some clinics. Beecher claims that with ether it is possible to use about 20 per cent more oxygen than with cyclopropane, and that mortality rates under cyclopropane are twice as high as under ether. His statistics do not show that the irritating effect of ether plays any part in postoperative morbidity. Other authors claim that the effect of ether in relaxing the bronchioles is more valuable than its irritating effect is dangerous. However, most authorities consider ether unsuitable for tuberculous patients because it increases secretions in the respiratory tract, increases loss of heat from the body, and is often followed by vomiting.

Nitrous oxide is non-toxic, non-irritating, noninflammable, and permits rapid recovery, but it produces only a light plane of anesthesia and it decreases oxygenation in these patients who need oxygen.

Cyclopropane permits complete oxygenation, produces no significant changes in blood chemistry, is comparatively pleasant to the patient and permits rapid recovery. The dangers of explosibility and toxicity to the heart are outweighed by the advantages listed above. A few thoracic patients will show gradual fall in blood pressure under cyclopropane, beginning about an hour after induction.

Spinal anesthesia is relatively non-toxic, is noninflammable and has no adverse effect in irritating the respiratory tract, increasing secretions or depressing the cough reflex. The principal disadvantage is that the patient is awake and must lie in an uncomfortable position. Although it is possible to intubate the trachea under local anesthesia this increases the patient's discomfort and is technically difficult, so the anesthetist usually has no control of the patient's respiration or his cough reflex. The high spinal needed for thoracic surgery usually

causes marked fall in blood pressure and may result in respiratory and circulatory collapse. In any case, oxygenation is decreased by the intercostal paralysis. Finally, spinal anesthesia is thought to be contraindicated by a systolic pressure of 95 mm. or less, a pressure which is not unusual in tuberculous patients.

Epidural and regional anesthesia are less dangerous than spinal, the principal objections being that the patient is awake and his respiration is not under control. Epidural cannot be supplemented by general anesthesia, as this deprives the anesthetist of his only guide to its safety, the reaction of the patient. These procedures are time-consuming and technically difficult, and do not produce perfect anesthesia in every case. There is no question, however, that they are indicated for certain types of operation in poor-risk patients.

Pentothal sodium is pleasant to the patient, nonexplosive and non-irritating. It is controllable and provides quiet respiration. However, it exerts its depressing effects notably upon the circulatory and respiratory systems, resulting in lowered blood pressure and depressed respiration. The patient is slow to regain an effective cough reflex and does not move about for several hours after operation.

Taking into consideration the problems which have been reviewed, a technic which is suitable in most of these cases has been worked out.

Before premedication, the patient's secretions are evacuated as thoroughly as possible by coughing, by postural drainage and if necessary by bronchoscopic aspiration. Most authors recommend liberal premedication as these patients usually have a high metabolic rate and often will have to undergo subsequent operations. If controlled respiration is to be used, premedication must be adequate to depress respiration. In some clinics respiration is completely abolished by curare, the trachea is intubated and the operation performed under nitrous oxide-oxygen, given by controlled or complemented respiration.

Before anesthesia is induced intravenous saline is started through a large needle, preferably in an ankle vein. At the time the pleura is opened, if not before, whole blood is added to the infusion, and if the blood pressure is low, neosynephrin may be added to the transfusion in the proportion of 2.5 mg. per 200 cc.

Tracheal intubation is performed in any case where the pleura is to be opened or where secretions are excessive, usually not in other cases. The largest possible tube is used and is passed through the mouth because this is less traumatizing and because a suction catheter may be more readily passed through it. It is believed that the dangers of the inflatable cuff outweigh its disadvantages. If a cuff presses too tightly and for too long a time upon the mucous membrane, necrosis may result. It prevents drainage of secretions back into the pharynx, leaving them no place to go except into the contralateral lung. If the cuff is placed so the operative lung is closed off and cannot collapse, while its blood supply is intact, the blood passes through the operative lung without being oxygenated. Finally, at least one fatality has been reported from rupture of a cuff.

Positive pressure is usually necessary during open pneumothorax under general anesthesia. It prevents collapse of the contralateral lung, stabilizes the mediastinum and insures adequate oxygenation. It permits frequent reinflation of the operative lung during the operation and at the close of operation, reducing the pneumothorax on closure of the chest wall. However, positive pressure causes a rise in venous pressure with a fall of blood pressure, and slowing of the circulation time. Respiration becomes slow, but takes on a straining quality if positive pressure is prolonged or excessive. Elimination of carbon dioxide is interfered with. It should be remembered that the alveoli may be ruptured by a pressure as low as 15 mm. of mercury.

Controlled respiration requires heavy sedation, and it is often necessary to supplement the premedication by giving morphine gr. 1-8 intravenously in the operating room. This technic requires mid-second plane anesthesia, whereas first plane anesthesia is sufficiently deep for chest surgery with spontaneous respiration. In using controlled respiration, the expiratory phase should be made twice as long as the inspiratory phase to allow better elimination of CO_2. The principal objection to this technic is that it deprives the anesthetist of his best criterion of depth of anesthesia. A satisfactory modification is to give curare in doses sufficient to keep respiration quiet without abolishing it completely.

Anesthesia should be deepened during opening of the pleura and during manipulation about the hilum. Many surgeons inject the hilum with procaine to prevent initiation of the vagovagal reflex. In other cases the anesthetist may give one per cent procaine intravenously.

Anesthesia may be lightened as soon as the lung is removed in a pneumonectomy, or as soon as the last rib is removed in a thoracoplasty. Toward the close of anesthesia the lungs should be filled with some inert gas, such as helium. Bronchoscopy is done when there is any indication of secretions in the tracheobronchial tree, not routinely as it is in some cases followed by apnea which may be alarming. As soon as the patient is returned to bed he is given oxygen by nasal catheter, or by oxygen tent or mask if a higher percentage of oxygen is needed.

SUMMARY

1. The problems of the tuberculous patient are discussed, particularly as they relate to chest surgery.

2. The various anesthetics are reviewed from the standpoint of their applicability to chest surgery in tuberculosis.

3. A workable technic of anesthesia is evolved, which is adoptable to any of the general anesthetics.

BIBLIOGRAPHY

Beecher, Henry K. Some Controversial Matters of Anesthesia for Thoracic Surgery. J. Thoracic Surg. 10:202, Dec. 1940.

Bourne, Wesley. Anesthesia for the Tuberculous Patient. Brit. J. of Anesthesia. 18:49, July, 1942.

Cole, Frank. Anesthesia for Open Chest Surgery. Am. J. Surg. 71:599, May, 1946.

Esten, Benjamin. Anesthesia for Thoracic Surgery. N. Y. State J. Med. 43:1980, Oct. 15, 1943.

Eversole, Urban H. and Overholt, Richard H. Anesthesia in Thoracic Surgery. J. Thoracic Surg. 5:510, June, 1936.

Krueger, V. R. Pentothal Sodium Anesthesia for the Tuberculous Patient. Am. Rev. of Tuberculosis. 47:51, Jan., 1943.

Mayer, Edw. C., Jr., and Neff, William. Further Experiences with Endotracheal Ether-Air Anesthesia for Intrathoracic Surgery. Anesthesiology. 7:32, Jan., 1946.

Murphy, J. D. Ether Anesthesia in Pulmonary Tuberculosis. Am. Rev. of Tuberculosis. 49:251, March, 1944.

Murphy, James D. Thoracoplasty for Tuberculosis. Medical Bulletin of the Veterans' Administration. 21:140, Oct., 1944.

Orton, R. H. Anesthesia in Thoracic Surgery. Anesth. and Analg. 25:96, May-June, 1946.

Paquet, Adrien. Pentothal Anesthesia for Thoracoplasty at the Laval Hospital. Anesth & Analg. 22:350, Nov.-Dec., 1943.

Randolph, Howell S. and Kober, Lesie R. Use of Pentothal Sodium Anesthesia in Thoracic Surgery. J.A.M.A. 121:1215, April 10, 1943.

Schaffner, V. D. and Found, E. M. Spinal Anesthesia in Thoracoplasty. J. Thoracic Surg. 12:190, Dec., 1942.

Wiggin, S. C. and Schultz, P. E. Anesthetic Procedures in Thoracic Surgery. Am. J. Sug. 54:4, Oct., 1941.

White, M. L., Jr., and Buxton, Robert W. Blood Loss in Thoracic Operations. J. Thoracic Surg. 12:198, Dec., 1942.

THE PSYCHIATRIC PROGRAM OF THE UNIVERSITY OF KANSAS MEDICAL CENTER

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A great popular interest in matters pertaining to psychiatry and mental hygiene is currently reflected in the lay press all over the country. Much is written in our newspapers and periodicals in criticism of the prevailing methods of care and treatment of the mentally ill. Everywhere one sees signs of a growing demand by the general public for better treatment of psychiatric disorders, for earlier treatment, and for more information on the subject of prevention of mental ills. The people of Kansas constitute no exception to this general trend; but they, like people elsewhere, need to be informed and to be guided in their efforts to attain what, for most, is still a rather vague and poorly understood goal—better mental health conditions in the community.

The situation just described presents both a responsibility and an opportunity for the medical profession of the state: a responsibility because the preservation of health, both physical and mental (the two are inseparable) is primarily the concern of physicians; an opportunity because here again is a situation in which doctors, as individuals, can serve their communities through intelligent, informed leadership.

Perhaps enough has been said about the negative side of the mental health question. It is time now to tell the pepole of Kansas of the positive steps that are being taken, what psychiatric facilities are available and how they may be used to best advantage, and what the public can do to increase the scope and usefulness of these facilities. The medical profession is in a strategic position to acquaint the public with such facts. Therefore, it is the purpose of this paper: (a) to call attention to recent developments in psychiatry at the University of Kansas Medical Center; (b) to suggest how the facilities there may best be utilized, and (c) to indicate to the physicians of the state how they may lend their support to the movement for better care of the mentally ill and for early treatment and prevention of mental disorders.

THE TEACHING OF PSYCHIATRY

A corps of trained personnel constitutes the keystone of any health campaign. The betterment of mental health conditions in Kansas will depend largely on the presence in the community of a group of physicians informed as to the principles of mental hygiene, interested and alert to pick up cases in need of mental therapy, and able to render appropriate psychiatric management. This applies to all doctors of medicine, whether they be in the "front line" of general practice, at the "collecting station" of some speciality other than psychiatry, or in the special domain of psychiatry itself. There must be enough physicians at all these points, and they must be sufficiently trained to do the mental health work required at their particular stations. The responsibility for giving this training falls mainly on the medical school. Assuming its responsibility in this aspect of a mental health program for Kansas, the University School of Medicine has increased its emphasis on the teaching of psychiatry. The chairmanship of the Department of Psychiatry and Neurology has been made a full-time teaching

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position. Psychiatry is now being given in all four years of the medical curriculum. The medical student is taught, through supervised work with patients in hospital ward and out-patient clinic, how to take a psychiatric history, to conduct a psychiatric examination, and to analyze the factors of etiological import in a case of mental disorder.

Much remains to be added. The teaching program calls for more instruction—on all the wards of the hospital—in the psychiatric aspects of medical care in general, so that the student will be better prepared to apply his knowledge of the principles of psychiatry and mental hygiene to the everyday practice of medicine, general or specialized, in whatever field he may eventually find himself. At present, internes and residents on the medical service have the opportunity of spending some time on the psychiatry ward. In addition to this, an expansion of post-graduate training is anticipated, with the addition of "straight" interneships and residencies for those seeking specialty board qualification in psychiatry. Finally, a complete and well-rounded teaching plan should include postgraduate instruction for practitioners desirous of improving their facility for handling the mental health problems they meet in the course of their everyday work.

Such a program should be the goal of the modern medical school—teaching psychiatry, not simply as a narrow specialty, but in its broader applications to all of medicine. It is now generally recognized and agreed that from 50 to 75 per cent of all patients coming to physicians, regardless of whatever other medical needs they may have, are in need of some sort of mental therapy. We want to see Kansas graduates go out prepared to take care of those needs. This will call for an increase in the full-time psychiatric teaching staff. A child psychiatrist and a psychiatrist qualified in the special field of psychosomatic medicine are urgently needed. We believe that if the physicians of Kansas and the people as a whole are informed of what we are trying to accomplish, the necessary financial support for an expanded, vital teaching program will be forthcoming.

IN-PATIENT TREATMENT

One of the tenets of modern psychiatry is that the sick citizen who happens to have mental symptoms has as much right to thorough medical treatment as any other patient. Hence the trends are to make hospitalization and complete medical care for the mentally ill as easily available as possible; to simplify the admission procedure; to free it from legal red tape and mortifying court procedures; to make hospitalization more acceptable to the public, so that patients will be brought in for treatment early in the course of illness, rather than as a last resort, after the opportunity for most timely and effective treatment has been lost. In line with these trends, Kansas has taken some forward steps.

In 1945 the state legislature passed a law authorizing probate judges to send patients to a psychiatric hospital *without commitment,* for a 30-day period of observation and treatment. In 1947 provision was made for extending the period of observation and treatment, upon recommendation of the physicians in charge, to 60 days and if needed to 90 days. The psychiatric receiving ward of the University of Kansas Medical Center (then designated as the University of Kansas Hospitals) was named specifically in the law as one of the psychiatric hospitals to which mental patients could be sent under court order. This ward, located in a remodeled building of the old Bell Memorial Hospital group, was opened in January, 1946. In its two years of operation it has had nearly 500 admissions. All types of psychiatric cases have been received, but the great majority have been psychotic, i.e., seriously ill mentally; generally speaking, commitable. These patients have been treated intensively, both by general medical and special psychiatric procedures. The average length of hospitalization has been approximately one month. The results of this short-term, intensive treatment have been quite gratifying. Most of the patients (about 75 per cent) have been restored to health or else sufficiently improved that they could return home to convalesce or to continue under out-patient treatment. In any event, the vast majority have been saved the necessity of hospital commitment. We believe that the results obtained have demonstrated the advantages to the community of such a psychiatric facility, operating under modern laws.

However, the psychiatric receiving ward is far from adequate to meet the need. With a capacity (under most favorable conditions) of only 25 patients, and a monthly intake rate of only about 20 patients, it cannot begin to meet the demand. The waiting list is always distressingly long. As often as not, a patient will have to wait a month or longer before a bed is available. This is not good, especially if the patient happens to be waiting in jail or amid equally unhealthy circumstances. The solution of this situation lies in increasing the facilities for the type of psychiatric treatment which has been described. This is a matter for the future, and one in which the physicians of the state may play a part.

In the meantime, the physician may assist in making the most effective use of the limited number of beds available by helping the probate judges select the cases most likely to benefit by hospitalization at the psychiatric receiving ward. To aid in the se-

lection of cases, the following criteria of "favorable" and "unfavorable" cases are given:

Favorable Cases—in general, cases with

1. Recent, acute onset of first mental abnormality or breakdown in contrast to previous "normal" effective life; or

2. Recent recurrence or acute exacerbation of mental symptoms in an individual who has been able to make a normal adjustment for some time preceding present attack; or

3. Onset of mental symptoms associated with either (a) physical illness or crisis supervening in the course of otherwise healthy life, e.g., pneumonia, gastric ulcer, pregnancy, menopause, operative procedure, etc.; or (b) emotional upheaval resulting from some revolutionary change in patient's way of living (or threat of same), e.g., marriage, divorce, breakup of home by death, etc.

Unfavorable Cases—in general, cases with

1. Long-standing mental disease, with psychiatric symptoms present continuously over a period of years; or

2. Life history of maladjustment and mental ill-health since early childhood; or

3. Association of mental disorder with hopeless somatic disease (e.g., advanced carcinoma) and/or an intractable social situation.

We do not mean to imply that *all* mentally ill citizens are not equally entitled to the benefits of treatment. We simply point out that practically it is better to treat and restore to healthy, normal activity two or three patients of the "favorable" category by the use of the bed space that would be required to obtain only moderate improvement in an "unfavorable" type case.

It is indeed regrettable that, while advertising the need for proper care of the mentally ill, we have to say of citizens of Kansas, "This one may receive our treatment, but that one must be denied it." This state of affairs need not continue long. Plans are now being made to present to the next session of the state legislature a proposal for building a state psychiatric receiving hospital with sufficient bed capacity and personnel to make available to all Kansans needing it the type of treatment now being given at the psychiatric receiving ward.* The support and active promotion of this proposal by all physicians in the state is most earnestly requested.

OUT-PATIENT TREATMENT

The Department of Psychiatry and Neurology operates out-patient clinics as an integral part of the out-patient department of the Medical Center. Psychiatry clinic is held every Monday, Tuesday, Thursday and Friday afternoon. Neurology clinic is held on Monday, Wednesday, Thursday and Friday afternoons. New cases are scheduled by appointment, because the time required for adequate work-up and for utilization of cases for teaching purposes strictly limits the case intake. Emergency cases are, of course, seen whenever they present themselves. However, the referral of patients from distant points in the state, without appointment made in advance, is discouraged because such cases necessarily can be given only summary consideration.

While the neurology clinic has no difficulty in keeping up with its case load, the psychiatry clinic is constantly running behind the demand for services. In spite of the fact that the number of psychiatrists in the clinic has been doubled in the last two years, there is always such a backlog of cases awaiting acceptance that appointments for first interviews usually must be made for four to six weeks from the time the applications are received. This is not a desirable state of affairs but it is not without its favorable implications, because it is in the out-patient clinic that preventive psychiatry has its inning. Thus it is encouraging to see more and more patients referred each year, including an ever-increasing proportion of both children and adults with relatively mild mental or emotional disorders. We hopefully look forward to the day when there will be enough physicians psychiatrically trained so that community psychiatric clinics may be established in many places, readily accessible to people of all sections of the state, and ultimately to the time when every doctor's office will be, in a sense, a mental hygiene clinic.

*Such a hospital would logically be situated in the immediate vicinity of the University Medical Center, so that it could have at its disposal all the laboratory and special medical facilities of that institution. Furthermore, through a cooperative working arrangement between the state psychiatric receiving hospital and the medical school, the psychiatrists of the teaching staff could direct the treatment of the patients, and the services of psychologists and other specially trained personnel could be made available. At the same time, the hospital could be used for teaching purposes. Thus there would be provided a teaching facility for medical students, graduate physicians, student nurses, psychologists, social workers and others, from all over the state.

The unsolved problems of public health and preventive medicine lie in the field of health protection and health promotion of the adult, particularly the young adult, who is the most productive member of society. It is also quite clear that problems of adult hygiene cannot be solved by the methods of mass approach.—*The Commonwealth Fund, 1947.*

Poverty causes illness, and illness, in turn, is a major cause of poverty. This vicious circle has long been recognized. It has also long been appreciated that it may be broken by social-economic measures, income, and living standards, and by medical care competent to lower the incidence and severity of disease.—The Commonwealth Fund, 1947.

RADIOACTIVE ISOTOPES AND THEIR RELATIONSHIP TO MEDICINE

Discoveries in the field of atomic physics have disclosed that several atoms may have different physical properties while having at the same time identical chemical properties. Such atoms have different atomic weights but the same atomic number and are called isotopes. All elements have isotopes, some of which occur naturally while others may be produced in a properly equipped laboratory.

Some of the isotopes which are "artificially" produced are radioactive and it is these to which the term "radioactive isotopes" usually refers. An isotope is radioactive when, because of physical instability resulting from bombardment by high energy nuclear particles in a cyclotron or nuclear energy reactor, spontaneous disintegration occurs with the emission of a beta particle often accompanied by gamma radiation.

The possession by radioactive isotopes of chemical properties identical to those of the non-radioactive element permits the introduction into the human body of radioactive isotopes of substances which are normal biochemical constituents of the tissues. The gamma radiation may be detected and measured outside the body. From this and the known proportion of radioactive to non-radioactive isotope introduced, the amount of the element present in the body may be deduced. Studies of the normal metabolic utilization of such a substance by a given organ, when compared with similar studies in case of suspected abnormality facilitate the diagnosis of malfunction.

The radiations emitted by radioactive isotopes are biologically effective in producing alteration or destruction of tissue. The isotopes of certain elements may be introduced into the body where they may be differentially absorbed by certain tissues. Under such circumstances the effectiveness of the beta radiation, so far as that tissue is concerned, is greatly increased. Certain radioactive isotopes have been used in this way to treat several neoplastic diseases.

Numerous instances of temporary recession of leukemia have been reported following the administration of radioactive phosphorus or sodium. Reports of successful treatment of both primary lesion and metastases from thyroid cancer have appeared in the literature. Claims of permanent cures are extremely rare or nonexistent. In most cases, the results seem to be palliative only. More clinical data on differential absorption and effective dosage are required before isotope therapy becomes firmly established.

*Prepared by Dr. Frank E. Hoecker, Associate Professor, Department of Physics and Astronomy, University of Kansas, for the Committee on Control of Cancer.

INFANTILE METHEMOGLOBINEMIA CAUSED BY NITRATES IN WATER

SYMPTOMS

Cyanosis, drowsiness, in infants under three months of age.

Other symptoms are failure to gain weight, vomiting, and excessive crying. The cyanosis is a deep blue cyanosis resembling that of congenital heart disease.

TREATMENT

Methylene blue, .5 to 1 cc. of a one per cent solution, intravenously. One per cent solution of methylene blue is available in ampules, commercially.

Prescribing a formula requiring very little water in areas where water contains more than 50 ppm. of nitrate.

ETIOLOGY

Nitrates in water. At first believed to be high only in well water; lately certain municipal water supplies in Kansas have been found to contain well over the safe limit. Two methods of reporting nitrate are in use: 1) as parts per million of nitrates, safe limit 50, 100 possibly safe; 2) as parts per million of nitrate nitrogen, safe limit 12; possibly safe, 23. Any physicians may find out the nitrate content of a municipal supply by writing the Kansas State Board of Health, Division of Sanitary Engineering, Lawrence.

FREQUENCY

Many cases have been found in several midwestern states, among which are Kansas, Missouri, Iowa, Minnesota, South Dakota, and Illinois. Many Kansas physicians are recalling cases in the past for which diagnosis of congenital heart was made or for which no cause could be found. All Kansas physicians should be on the alert for this condition.

Committee on Child Welfare

PRESIDENT'S PAGE

Dear Doctor:

There are a number of things I want to discuss with you. I cannot present all of them at this time, so please watch this page in subsequent issues of the Journal.

If you were present at the state meeting, you must have been impressed with the fine program arranged by the Wichita members and the spirit of progress that attended the meeting. If it was impossible for you to be there, I am sure you will want to read a review of the meeting in this Journal.

The "little dynamo," Franklin Murphy, the new dean of the medical school, was quite a sensation! He made us feel that the school, to which Dean Wahl has contributed so much, is really going to be our school now. There is every indication that the school will get 100 per cent alumni and Medical Society support.

Dr. Murphy is anxious to enlarge upon our plans for postgraduate refresher courses. He is willing to help us develop plans for selecting the state's "most valuable" general practitioner for the year, so now is a good time to start qualifying yourself. In fact, he is full of worth while ideas for the advancement of the medical services in Kansas.

I am convinced of one thing. We are doing a fine piece of work as a Society. I am just as firmly convinced that we are not using as effectively as we could all our available talent.

I had the privilege of talking to two of the finest women in the state, your wife and your office assistant.

I feel sure that the Woman's Auxiliary was responsible in a measure for our fine medical attendance. For example, the Labette County ladies sponsored one of the Auxiliary noon lunches. I am sure their husbands came to Wichita too. These ladies get action on many, many projects in the community, which you and I could not get to first base on. I hope you will show your wife this paragraph so she will know how much I appreciate all her efforts in health programs, nurse recruitment, Blue Shield and Blue Cross endeavors, the cancer drive, and so forth.

I was very much impressed with the interest that prevailed among the medical assistants in your behalf. They discussed ways and means of improving their technique with your patients, and they were searching for other projects which would benefit your practice. I suggested to them that they were in a fine position to spread the advantages of Blue Shield and Blue Cross. They see the patients first and last. Frequently, they can make suggestions to patients that would be rather tactless for you or me to make.

These two groups can be of immeasurable help to the Society in cultivating a better understanding of problems that are of mutual interest to doctors, dentists, pharmacists, nurses, veterinarians, morticians, and so forth, through precinct and governing bodies. It is hay making season now.

The masterful report by Kirke Dale on the progress of the osteopathic litigation so ably handled by himself, Blake Williamson, Clarence Munns, the Attorney General, Mr. Arn, and members of the A.M.A. legal staff should convince us for all time that any person or persons so vitally interested in the furtherance of good medical services for Kansas is deserving of our wholehearted support.

I am sure it is going to be a pleasure to work with you and your interests this year. I hope that sincerity of purpose and enthusiasm will make up for what I lack in ability. Until next month, then,

Sincerely yours,

W. Davidson M.D.

President.

EDITORIALS

Ethics

The Sedgwick County Medical Society annually holds what is called an indoctrination meeting. All members are invited but it is designed to acquaint new physicians with the ideals and responsibilities of the practice of medicine. A few days ago, as a part of such a program, F. J. McEwen, M.D., gave an inspired talk on ethics. His kindly, thoughtful advice to physicians beginning their professional career, we believe, might be read by all with profit.

"The physician has considered ethics from the dawn of history of equal importance with his professional skills. From the days of Hippocrates to the present we have attempted to record principles by which we may govern our conduct. These are available and should be read on occasion. However, it is my opinion that there is another way of thinking about ethics and it is this other, a more general consideration of the topic, I wish to suggest this evening.

"Were a long life, a leisurely life, or a prosperous life our major consideration, very few of us would be eligible for attendance at this meeting tonight. We are interested in a special type of service to mankind and, because of the singular nature of our work, assume certain responsibilities that men in other fields need not consider. The years spent in preparation for such service are strenuous enough to dishearten those who lack a sincere desire to aid mankind. So, in my opinion, if you can hold to the ideals that prompted you to become physicians, the matter of ethics as it pertains to your professional relations with the patients you serve need not be of further concern. There is nothing in our code of ethics that can thereafter be disturbed.

"Ethics also involve relations with other members of our profession, and under the stress of competition you will experience a temptation or two. But, if you will forgive a bit of personal advice from one who has practiced for a considerable number of years, I will say that no adequately trained doctor of medicine whose primary interest has been to serve his patients ever failed because of competition.

"We enjoy the association of our colleagues. We respect and admire their ability. Social acquaintances will frequently ask your opinion of another physician who happens to be caring for them. It has become rather commonplace in this locality for the doctor to tell his friend that he is in capable hands or that he is being well cared for. As a result, this is a pleasant community in which to live and in which to practice medicine.

"Yes, the code of ethics approved by the American Medical Association is much longer than this little talk, but it says in some detail just what I have tried to say this evening. If your consideration for the other physicians in this community is governed by the consideration you would like to be shown, I believe you will have fulfilled every requirement the ethics of the medical profession has to suggest. The fact that our ethics committee has not been called upon for many years indicates that we are trying to conduct ourselves in that way. And with that word of what I hope is encouragement, I am most happy to welcome you as members of the finest profession on earth."

Medicine and the Machine

We were still amazed at the ingenuity of man, who could create the complex and monstrous B-29 we saw in Wichita a few days ago, when we read in the paper of two fifth grade boys who successfully flew a plane according to comic book instructions. Then our mind whirled around the subject of the machine age and the average American's worship of any mechanical contrivance.

Ever since the invention of the printing press, which illustrated the fact that a second copy could be reproduced exactly like the original, we have embraced the philosophy that uniformity is the height of achievement. By and large, this has left us without originality in the production of our material goods and has also removed the personal equation from human activities, as, for example, accounting.

It is easy, therefore, to understand the public's blind faith in any mechanical contrivance for which is claimed therapeutic or diagnostic power. The all-but-forgotten Abrams machine is but one example from a generation ago. New devices are constantly appearing. A few days ago we received some literature distributed by a Kansas cultist on what he calls a "tox-eliminator," for which is claimed superior diagnostic ability and treatment powers for a long list of diseases including high and low blood pressure, appendicitis, hay fever, arthritis, heart involvements, and "many other pathological conditions too numerous to mention."

Again, as always, there is a suggestion of human frailty and of the infallibility of the machine. Again is found the age old trick of clothing the subject in mystery. Again you see the hackneyed sales promotion upon which the makers of patent medicines and devices and the practitioners of the cults exist.

Omitting every consideration from this discussion except that relating to the health of the people, it seems that only three choices remain. Unless protection of the people from unqualified medical care

is of no concern to anyone, there must be either a revitalization of the laws governing the healing arts, or scientific persons must find a voice to tell the public what inadequate medical care means. Stories of advancements in medical science may be a part of this picture, but along with that must be a clear, forthright account of medicine, the art. There must be a re-evaluation of the value of training, experience, and thought. The machine, even the most valuable among them, must be understood by the public to be what it really is, an instrument to assist but not replace the human element in the practice of medicine. Once that is understood, a major part of the battle for high quality, dependable medical care will have been won.

Selective Service Legislation

Watch the progress of two important and controversial bills before the Congress at present. They are S.2655 and H. R. 6401. These are the two Selective Service bills and both of them have been reported out of committee. In both instances the controversial section, 4(c), requiring the registration of physicians up to the age of 45, remains. At the time of this writing neither bill has been placed on the calendar, but it is probably only a question of time until they will be discussed and voted upon.

There have been times in the past when the medical profession protested against bills under consideration by the Congress. Generally, that was based on the belief that the measure involved was not for the best interests of the public health. This time, however, the medical profession rises in indignation because its loyalty and patriotism have been questioned. The medical profession alone is singled out in these measures to be drafted according to a separate formula, different from that of all other persons eligible for service in the armed forces. The record made by the medical profession during the recent war can certainly leave no doubt that physicians are patriotic and that they will respond whenever their services are required.

The Congress of the United States has no evidence to justify this personal attack on the profession. Medicine has served the armed forces and will continue to do so. As individuals we are not disloyal to a point where special legislation is required to assure our government that adequate use of our services may be obtained in time of war. On this matter ours is a very personal and a very strong resentment.

Another point concerns the age limit. The Selective Service law authorizes the drafting of persons up to 38 years of age, but under this proposal physicians will be drafted up to age 45. We believe there is some doubt as to the constitutionality of one provision in a law of this kind that singles out one group in a manner different from that in which all other persons in this nation are to be utilized.

There are concerted efforts being taken by the medical profession to voice its disapproval. For instance, the American Medical Association has organized a Council on National Emergency Medical Service. This council recently invited representatives from each state to a meeting in Chicago. Kansas sent Dr. George F. Gsell of Wichita, who has since accepted the chairmanship of the Kansas Committee on Emergency Medical Care, which will cooperate with the A.M.A. council. It is planned, through the organization of such committees in every state, that a better method for providing information to the individual physician as well as to the armed forces can be established. The Kansas committee is already organized and consists of Dr. George F. Gsell, Wichita, chairman; Dr. W. P. Callahan, Wichita; Dr. J. L. Lattimore, Topeka; Dr. L. S. Nelson, Salina, and Dr. H. E. Snyder, Winfield.

The committee hopes to be able to serve the members of the Kansas Medical Society and welcomes any suggestions now or at any time on ways in which this may be accomplished.

New Series on Child Welfare

Beginning with this issue the Journal will carry a regular report each month from the Committee on Child Welfare. These articles, following the scientific section in the Journal, will consist of brief summaries on the general subject of child welfare. When occasion arises, as in this instance, advice will be given on the treatment of a specific condition. At other times the subject matter will be general in scope.

Each article has been prepared and approved by your Committee on Child Welfare and is presented in the hope that it will be of assistance to the many Kansas physicians repeatedly called on to treat children. The Journal wishes to call special attention to this new series and invites comment on any of the articles appearing in that section.

Scientific Exhibit Awards

At the 1948 session the Kansas Medical Society awarded plaques to physicians who presented the three outstanding scientific exhibits. Twenty exhibits, representing original work performed by Kansas physicians, were displayed. Judging was based on scientific value and originality. Three of the out-of-state guest speakers were invited to select the winners, and their findings were as follows.

First place went to the Sedgwick County Tumor Clinic. Second place standing was given an exhibit

(Continued on Page 264)

89th Annual Session, May 10-13, 1948

Officers for 1948-1949

At the second meeting of the House of Delegates at the 89th annual session of the Kansas Medical Society, held in Wichita, May 10-13, 1948, the following officers were named: president, Dr. Oscar W. Davidson, Kansas City; president-elect, Dr. J. Haddon A. Peck, St. Francis; first vice president, Dr. F. R. Croson, Clay Center; second vice president, Dr. Harold H. Jones, Winfield; constitutional secretary, Dr. Dale D. Vermillion, Goodland; treasurer, Dr. J. L. Lattimore, Topeka; delegate to the American Medical Association, 1949-1951, Dr. Philip W. Morgan, Emporia; alternates to the American Medical Association, Dr. L. S. Nelson, Salina, and Dr. J. L. Lattimore, Topeka.

Councilors for 1948-1949

The terms of four councilors of the Kansas Medical Society expired at the time of the 89th annual session, and each of the four districts held a caucus to fill the vacancies. One councilor was eligible for re-election and was named to succeed himself, and three new councilors were elected. The complete membership of the body is as follows:

District 1—Dr. W. L. Anderson, Atchison, elected in 1948 to a three-year term expiring in 1951.

District 2—Dr. Lewis G. Allen, Kansas City, re-elected in 1948 to a three-year term expiring in 1951.

District 3—Dr. C. H. Benage, Pittsburg, re-elected in 1946 to a three-year term expiring in 1949.

District 4—Dr. F. Foncannon, Emporia, re-elected in 1947 to a special two-year term expiring in 1949.

District 5—Dr. L. J. Beyer, Lyons, elected in 1947 to a three-year term expiring in 1950.

District 6—Dr. W. F. Bernstorf, Winfield, re-elected in 1946 to a three-year term expiring in 1949.

District 7—Dr. Hugh A. Hope, Hunter, elected in 1948 to a three-year term expiring in 1951.

District 8—Dr. W. A. Smiley, Junction City, elected in 1948 to a three-year term expiring in 1951.

District 9—Dr. Marion J. Renner, Goodland, appointed in 1947 to fill the unexpired term of Dr. Dale D. Vermillion, expiring in 1950.

District 10—Dr. Murray C. Eddy, Hays, elected in 1946 to a three-year term expiring in 1949.

District 11—Dr. J. R. Campbell, Pratt, re-elected in 1947 to a special two-year term expiring in 1949.

District 12—Dr. G. R. Hastings, Garden City, re-elected in 1946 to a three-year term expiring in 1949.

The Secretary's Concept*

The 1948 annual meeting of the Kansas Medical Society is a thing of the past. By those of us who were fortunate enough to be able to attend this session held in Wichita, May 10 to 13 inclusive, it will be remembered as the most outstanding and successful meeting the Society has ever held. The hospitality of the members of the Sedgwick County Medical Society was again its usual super service in every department. The fact that all programs were so well attended gives ample testimony as to the quality of the speakers provided for us.

On behalf of the members of the Kansas Medical Society who are not members of the Sedgwick County Medical Society, I wish to take this means of extending to their society and executive secretary thanks and sincere appreciation for a job well done.

*Prepared by the secretary of the Kansas Medical Society, Dr. Dale D. Vermillion, Goodland, at the request of the Editorial Board.

First Session, House of Delegates May 11, 1948

The president, Dr. L. S. Nelson, Salina, called the meeting to order and asked the secretary to read the minutes of the previous meeting. With the consent of the body it was determined to accept the minutes of the last annual session as previously published in the Journal. There was a request from the floor for a resume of the minutes of the special session of the House of Delegates, held at Topeka on Sunday, February 29, 1948. The secretary, Dr. D. D. Vermillion, Goodland, summarized these minutes and read the motion concerning the special assessment. Those minutes were approved.

Dr. A. W. Fegtly, Wichita, sergeant at arms, announced that at the beginning of the meeting there were 69 delegates present and 22 officers and past presidents, making a total of 91 voting delegates, sufficient for a quorum.

The president called for a report from Dr. John M. Porter, Concordia, chairman of the Reference Committee. Dr. Porter summarized the committee reports as previously published in the Journal.

The president introduced Dr. Franklin D. Murphy, Kansas City, who will become dean of the University of Kansas School of Medicine on July 1. Dr. Murphy spoke briefly on his plans for the future of the medical school.

The president outlined the story of the recent osteopathic hearing held on April 19, 1948, and paid tribute to the American Medical Association for its active cooperation. He then introduced Mr. Kirke W. Dale, Arkansas City, attorney for the Kansas Medical Society, who explained the problems involved in this lawsuit in more detail. Mr. Clarence G. Munns, special counsel for the Kansas Medical Society, was introduced and paid a tribute to the attorneys who defended the Governor and the Attorney General in this lawsuit.

The president then called on Dr. George F. Gsell, Wichita, chairman of the newly organized Committee on Emergency Medical Care, for a report on the conference recently held in Chicago. He stated that the American Medical Association is organizing a council to co-operate with all states and with officials in Washington for disseminating information between Washington and state medical societies. A committee has been set up in Kansas to serve the Kansas Medical Society and this state.

The president reported that there had been no activity of the Defense Board and spoke briefly of the necessity for each physician to carry insurance for his own protection.

The president then called on Dr. L. R. Pyle, Topeka, editor of the Journal of the Kansas Medical Society, who summarized the activities of the Editorial Board for the past year.

The president then called on Mr. Oliver E. Ebel for the report of the executive secretary. The executive secretary had outlined several resolutions, thanking individuals as well as the American Medical Association for their contributions in the recent lawsuit and submitted those with the suggestion that they be introduced and then revised by a committee before adoption. The introduction was made upon motion by Dr. J. F. Gsell, Wichita.

The constitutional secretary was called on for his report, in which he stated that the Kansas Medical Society, as of May 1, 1948, had 1,461 paid memberships, 80 honorary memberships, six service members and 88 members in arrears, or a total of 1,635, an increase of 29 over the previous year.

The president then called on Dr. J. L. Lattimore, Topeka, treasurer, who reported on the finances of the Society with reference to its general fund, postgraduate fund, and the special assessment. He recommended that plans should be made at this session for increasing the dues in the future.

Upon request of the treasurer, Dr. Harold H. Jones, Winfield, chairman of the Subcommittee on Graduate Education, reported on the grants to widows of physicians who lost their lives in the service. He made a motion which was seconded by Dr. John M. Porter, Concordia, that a grant of $100 a month for a period of one year be given to the widows of three former members and that a war bond and scroll be given to each of the children of the other former members. This motion was acted upon at this time and carried without dissent. At this time Dr. Jones submitted a resolution from Dr. Maurice Snyder, Salina, chairman of the Committee on Medical Schools, recommending expansion of all phases of graduate education in Kansas.

The president introduced Dr. O. W. Davidson, Kansas City, president-elect.

New business was called for and Dr. B. A. Nelson, Manhattan, president of Kansas Physicians' Service, was recognized. He reported briefly on the present condition of Blue Shield. He reported that last year they had paid a quarter of a million dollars to participating physicians and, on the basis of present indications, would pay one-half million this year. There are 77,000 subscribers.

The president then announced that Kansas physicians had done more work for the Veterans Administration this year than at any time in the past and that it was hoped the contract between the Kansas Medical Society and the Veterans Administration could finally be adjusted to the satisfaction of both parties concerned.

The president called on Dr. A. W. Fegtly, Wichita, chairman of the Committee on Constitution and Rules, who introduced a number of suggested amendments to the by-laws and one to the constitution. These were read by title only and placed before the body for discussion at the second meeting. Printed copies of these recommendations were distributed to the members to study at their leisure.

Dr. E. A. Reeves, Kansas City, presented a resolution requesting the House of Delegates to approve the organization of a Kansas Academy of General Practice.

Dr. William B. Scales, Hutchinson, moved that the Council and the Committee on Emergency Medical Care co-operate through the American Medical Association and other organizations for the defense of the individual physician against discrimination with reference to service requirements. This motion was seconded by Dr. A. C. Armitage, Hutchinson, and carried.

The president announced that a caucus should be held by each of four councilor districts, Numbers 1, 2, 7 and 8, to determine their choices for councilors.

He announced the second House of Delegates would meet on Thursday, immediately after the close of the scientific session. There being no further business, the meeting adjourned.

Second Session, House of Delegates
May 13, 1948

The president, Dr. L. S. Nelson, Salina, called the meeting to order. The sergeant at arms, Dr. A. W. Fegtly, Wichita, reported that 70 delegates were present plus 12 officers and councilors, making a total of 82, sufficient for a quorum. There being no supplementary report from the Reference Committee, the president asked for discussion on unfinished business.

Resolutions introduced at the previous meeting of the House of Delegates, expressing gratitude to the American Medical Association and to the witnesses and attorneys who assisted in the recent lawsuit, were discussed. It was moved by Dr. F. C. Taggart, Topeka, seconded by Dr. H. H. Hesser, Kansas City, that these resolutions be studied by the Executive Committee and that especially the resolution to the American Medical Association should be forwarded to the attorney for the Kansas Medical Society for approval and that when agreed upon, the delegates to the American Medical Association from Kansas should be instructed to introduce the resolution to the House of Delegates at the next meeting of the A.M.A. The motion carried without dissent.

Dr. George R. Combs, Leavenworth, made a motion which was seconded by Dr. H. P. Jones, Lawrence, that a resolution of appreciation also be drafted by the Executive Committee expressing the gratitude of the Society to Dr. L. S. Nelson, president, for his contributions toward the osteopathic hearing. The motion carried without dissent.

The resolution previously introduced, recommending increased activity in post-graduate education, was recommended for passage by Dr. George R. Combs, Leavenworth, and seconded by Dr. D. L. Evans, Manhattan. The motion carried without dissent. The resolution is worded as follows: "Be it resolved by the Kansas Medical Society that, whereas the Society recognizes the importance of continuing education of all members of the medical and allied professions, to the improvement of health and medical care in Kansas, this Society go on record as favoring expansion at all levels of the postgraduate medical training programs in the state."

A resolution previously introduced, recognizing the organization of a Kansas Academy of General Practice, was recommended for passage by Dr. E. A. Reeves, Kansas City, was seconded by numerous members, and was carried without dissent. That resolution is as follows: "Whereas, the American Academy of General Practice has previously been endorsed by the House of Delegates of the American Medical Association; and whereas, the Kansas Academy of General Practice is affiliated with the American Academy of General Practice, be it therefore resolved that the House of Delegates of the Kansas Medical Society endorse the organization of the Kansas Academy of General Practice."

Dr. A. W. Fegtly, Wichita, chairman of the Committee on Constitution and Rules, reported on numerous amendments to the by-laws. Each proposal was voted on individually, and the amendments which were approved are printed elsewhere in this issue of the Journal. Upon a motion by Dr. J. F. Gsell, Wichita, duly seconded and carried, it was decided that the amendment with reference to the creation of a nominating committee not be considered at this meeting.

It was moved by Dr. J. F. Gsell, Wichita, and duly seconded that a committee of five be appointed by the president to study the problem of the election of officers and to report at the next House of Delegates meeting. The motion carried.

A motion was made by Dr. F. C. Taggart, Topeka, and

MILESTONES IN CARDIORESPIRATORY HISTORY



Aretaeus

OF CAPPADOCIA (1st Century A.D.)

First accurate description of asthma;
separated asthma from orthopnea.
"If heart be affected,
the patient cannot long survive."

In the treatment of bronchial asthma,
the clinical usefulness of Searle Aminophyllin
is well established. Its value
in patients who do not respond to epinephrine
or in those in whom epinephrine
is contraindicated
has been stressed repeatedly.

SEARLE AMINOPHYLLIN*

—is accepted therapy also
in congestive heart failure . . . paroxysmal
dyspnea . . . Cheyne-Stokes respiration.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

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OF MEDICINE

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*Searle Aminophyllin contains at least 80%
of anhydrous theophylline.

seconded by Dr. Donald P. Trees, Wichita, that the committee of five should present to the House of Delegates a plan whereby a nominating committee might be provided. After some discussion, a standing vote was called for and the motion carried with 35 voting in favor and 31 voting against the motion.

Dr. A. W. Fegtly, Wichita, recommended an amendment to the constitution to provide for the election of an officer or councilor not present at the time of election. This proposed amendment must be tabled for one year and must be printed twice in the Journal before it may be considered by the House of Delegates.

The president paid tribute to Dr. Fegtly for the vast amount of work he has done in modernizing the constitution.

Dr. L. J. Beyer, Lyons, requested authorization for the introduction of an item of new business, that the special assessment of $35 should be made payable as of July 1, 1948, rather than January 1, 1949, as previously determined. Upon motion by Dr. J. L. Lattimore, Topeka, treasurer, seconded by Dr. Hugh A. Hope, Hunter, this new business was authorized for introduction and carried without dissent.

Dr. Henry N. Tihen, Wichita, made a motion which was duly seconded and carried that the following telegram be sent by the House of Delegates to Dr. George M. Gray, Dr. J. F. Hassig and Dr. L. G. Allen, all of Kansas City: "The House of Delegates of the Kansas Medical Society sends greetings and expresses sorrow that you are unable to attend the 89th annual session. You were missed by everyone and it is our hope you may be with us at Topeka next year. Signed, L. S. Nelson, M.D., president."

Dr. J. T. Anderson, Leavenworth, requested permission to introduce a resolution prepared by the Leavenworth County Medical Society with reference to action on transferring that society to another councilor district. It was moved by Dr. Henry N. Tihen, Wichita, seconded and carried without dissent, that this should be referred to the Council.

The president asked for nominations from the floor for elective positions, and the following officers were individually elected by unanimous ballots: president-elect, Dr. J. Haddon A. Peck, St. Francis; first vice president, Dr. F. R. Croson, Clay Center; second vice president, Dr. Harold H. Jones, Winfield; treasurer, Dr. J. L. Lattimore, Topeka; constitutional secretary, Dr. D. D. Vermillion, Goodland; delegate to the American Medical Association, 1949 to 1951, Dr. Philip W. Morgan, Emporia; alternates to the American Medical Association, Dr. L. S. Nelson, Salina, and Dr. J. L. Lattimore, Topeka.

The schedule was interrupted by the president who asked Dr. Philip W. Morgan, Emporia, to report on the two meetings of the House of Delegates of the American Medical Association, the mid-winter meeting at Cleveland and last summer's meeting at Atlantic City. Dr. Morgan presented those reports.

The president then requested a report from the four councilor districts which elected councilors this year. District 1 reported the election of Dr. W. L. Anderson, Atchison; District 2 reported the election of Dr. L. G. Allen, Kansas City; District 7 reported the election of Dr. Hugh A. Hope, Hunter; District 8 reported the election of Dr. W. A. Smiley, Junction City.

The president announced that the Council would meet immediately after the adjournment of the session of the House of Delegates, and then presented Dr. O. W. Davidson, Kansas City, and installed him as president of the Kansas Medical Society.

Dr. J. L. Lattimore, Topeka, asked the House of Delegates to give a vote of thanks to the Sedgwick County Medical Society for having planned and conducted a most excellent meeting. This was enthusiastically acclaimed.

There being no further business, the new president declared the meeting adjourned.

Amendments to By-Laws

Printed below are amendments to the By-Laws of the Kansas Medical Society as approved at the 1948 annual meeting of the Society at Wichita, May 10-13, 1948. The amendments are identified by number as they were printed in the Journal prior to the meeting. Several amendments which had been proposed but were later withdrawn or rejected are not listed.

The amendments approved by the House of Delegates are as follows:

1. Chapter IV—General Meetings and Sessions.

Sections 1, 2 and 5 shall be amended by substituting the words "Committee on Arrangements" for "Committee on Scientific Work" in each section.

2. Section 6 shall be amended to read: "A definite time and place shall be designated on the program for the annual address of the president."

3. Section 9 shall be amended to read: "Every paper read before this Society desired by the Editorial Board for publication in the Journal shall be deposited with the secretary as soon as possible after its presentation."

4. Chapter V—House of Delegates.

Section 17, as amended May 11, 1944, shall be amended to read as follows: "Representatives to the House of Delegates of the American Medical Association shall be certified to the meetings of that body according to the Constitution and By-Laws of that association and shall be selected as follows: one-half the number of delegates permitted this Society for two-year terms of office shall be selected annually as delegates-elect whose term of office shall begin at the annual session of the American Medical Association the year succeeding their election.

"Alternate or alternates shall be elected each year for two-year terms who may be certified to substitute for any delegate unable to attend an annual or interim session during his term of office."

5. Chapter VI—Election of Officers.

Section 1 shall be amended to read: "The election of officers shall be held at the last meeting of the House of Delegates at each annual session."

9. Chapter IX—Defense Board.

Section 1 shall be amended to read: "Members of the Kansas Medical Society are urged to carry individual professional insurance with commercial companies as these usually include possible indemnity in their policies, but additional assistance of the Society Defense Counsel may be provided if necessary or desired.

"It shall be the duties of the members of the Defense Board, severally or collectively, to investigate all claims of malpractice made against members desiring Society assistance; to assist in conducting the defense, and to pay the Society defense attorney his fee and expenses from funds of this Society within their control, but they shall not pay or obligate this Society to pay any court costs or judgments rendered against any member in the final determination of any case, nor shall they be obligated, without affirmative action, to pay the fees of any local attorney employed by the member. The Defense Board shall be empowered to contract with agents or attorneys as it deems necessary, in so far as the amounts to be expended thereby

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are approved, or do not exceed the amount of the annual budget for defense purposes."

10. Section 2 shall be amended to read: "Defense assistance shall be available only to an active member of this Society, and only in civil claims or suits alleging malpractice based on professional services rendered in the practice of his profession, within the State of Kansas or adjoining states, during the time he was a paid-up member of this Society, and only in civil claims or suits instituted in the courts of the State of Kansas, and/or adjoining states, or Federal Courts in the State of Kansas. There shall be no exception unless recommended by the Defense Board.

"The councilor of the district in which the member asking defense assistance resides shall be an ex officio member of the Defense Board when acting on that specific case."

11. Section 3 shall be amended to read: "It shall be the duty of any member of this Society threatened with a suit or suits for malpractice desiring Society defense assistance, to immediately notify the president of the component society of which he is a member, who shall at once request the executive secretary or the chairman of the Defense Board to forward a defense application for completion. On receipt of this blank properly executed and with full information the president of that component society shall immediately appoint a committee of which the councilor of the district shall be a member and preferably the chairman. This committee shall proceed without delay to investigate the charge made against such member."

12. Section 4 shall be amended to read: "The local committee shall consult with the defendant, and if necessary his witnesses, and if the committee shall agree that the case should be defended it shall so report to the chairman of the Defense Board. If this committee shall decide that it is not a case to be defended, the defendant may appeal directly to the Defense Board which shall in all cases have the final decision as to whether or not Society Defense assistance shall be rendered. The findings of the committee and/or Defense Board, if unfavorable, are to be communicated only to the member applying for defense assistance."

13. Section 5 shall be amended to read: "Investigations of the committee and of the Defense Board shall be conducted without unnecessary delay and decisions rendered whether or not a suit is a proper case for defense assistance. When defense assistance is undertaken, the defendant shall be obligated to inform the committee and/or the Defense Board of any new developments affecting the status of the case in question, and the Defense Board or its attorney shall report to the defendant from time to time the progress of legal action. The member sued or threatened with suit shall be privileged to withdraw his request for Society defense assistance at any time prior to trial."

14. Chapter X—Editorial Board.

Section 4 shall be deleted since the subject is already covered in Chapter VII, Section 7, and the following sections numbered consecutively.

15. Chapter XI—Committees.

Section 1. The Committee on Scientific Work shall be dropped from the roll of standing committees.

Section 25. The work of this committee shall be deleted and succeeding committees numbered consecutively.

16. Chapter XI—Committees.

Section 3, as amended in 1944. Paragraph 2 shall be amended to read: "The special reference committee shall meet prior to the first meeting of the House of Delegates to enable it to make preliminary report to the first meeting of that body. Their work shall be to study the reports of standing committees, special committees, councilors, and any other reports referred to it by the president, as well as all resolutions sent in prior to the first meeting of the House of Delegates for consideration of that body. In their preliminary report they may at their discretion submit any or all reports for acceptance or adoption by the House of Delegates briefly BY TITLE AS PRINTED IN THE JOURNAL, except that recommendations of any committee or councilor requiring or requesting specific action or policy of the state Society shall be presented in detail.

"They shall hold subsequent meeting or meetings between the sessions of the House of Delegates for the consideration of all resolutions presented to the House and for hearings on the various suggestions or recommendations requiring specific action or policy of the state Society, and shall make final report with recommendations thereon to the last meeting of the House of Delegates before final or definite action is taken."

17. Section 7 shall be amended to read: "The Committee on Arrangements shall be appointed by the component society of the county in which the annual session is to be held, and shall consist of as many sub-committees as may be desired. It shall be the duty of this committee to provide suitable accommodations for the meeting places of this Society, the Council, the House of Delegates and their respective committees. It shall prepare and arrange for diversified scientific programs subject to the approval of the Executive Committee and shall have general charge of all the annual session arrangements, in co-operation with the executive secretary. Its chairman shall report an outline of the arrangements and program to the executive secretary for publication in the annual session program, and shall make additional announcements concerning the session as occasion may require."

18. Section 14 shall be amended to read: "The Committee on Credentials shall be composed of the secretary, the sergeant-at-arms appointed by the president, and one other member. It shall be the duty of this committee to approve or reject credentials for admission or representation at meetings of this Society or the House of Delegates. It shall arrange for registration of members at each annual or special session of the Society and each session of the House of Delegates."

19. Section 21 shall be amended by the addition of the following paragraph: "It shall also further scientific activities of this Society such as refresher and postgraduate courses."

20. Chapter XII—Component Societies.

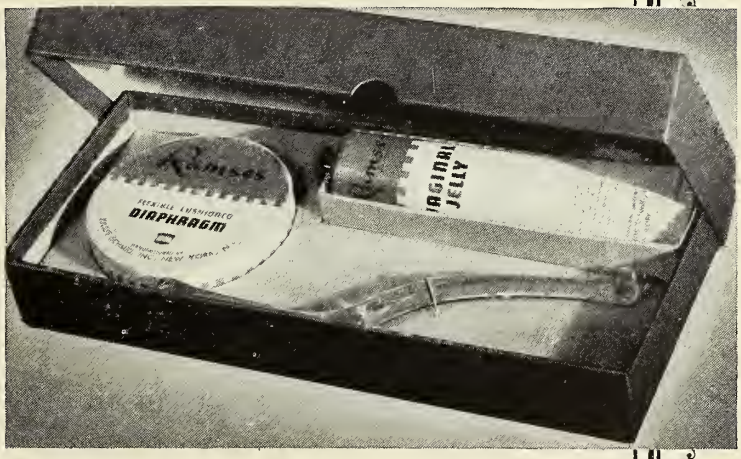
Section 11 shall be amended to read: "No physician may hold ACTIVE membership in two component societies at the same time and no physician may be an ACTIVE member of a component society without becoming a member of this Society."

21. Section 16 shall be amended to read: "Physicians residing in counties where no component county society exists or residing in two or more adjoining counties in which the number of practicing physicians desiring affiliation with the Kansas Medical Society is too limited to assure successful and beneficial meetings, may form joint county or district societies whose principles, constitution, and by-laws are recognized and approved by the Council, and by virtue of such membership may be accepted as members of this Society.

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tered by this Society, original charters must be surrendered if so ordered by a MAJORITY VOTE of the MEMBERSHIP of such component society, and a new charter requested, with certification of individual membership by the proper officials of the component societies surrendering their charters. State Society membership dues or assessments shall be paid through the newly formed component society."

Proposed Amendment to Constitution

An amendment to the Constitution of the Kansas Medical Society was proposed at the first meeting of the House of Delegates held at Wichita May 11, 1948. The amendment, to Article X, Section 4, of the Constitution, would add the following clause: "In extremely unusual circumstances making the physical presense of a desirable or worthy officer or council member impossible at the session, this provision may be over-ruled by a three-fourths majority of the members voting on his election."

No action on the amendment will be taken until the 1949 meetings of the House of Delegates.

Report of Journal Editor

Your Editorial Board, composed of Lucien R. Pyle, editor, Dwight Lawson, Don C. Wakeman, Orville R. Clark and John W. Cavanaugh; Miss Pauline Farrell, managing editor; Oliver Ebel, business manager; and James B. Weaver and C. A. Hellwig, associate editors, has met eight times since the last report to the House of Delegates. All members of the Editorial Board, Miss Farrell and Mr. Ebel were present at four of the meetings. Dr. Weaver came down from Kansas City to attend one meeting.

In addition to the routine business of the Board the following subjects were given special attention:

1. The Board decided unanimously to accept the offer of the Journal Club of Emporia to prepare abstracts of current literature for publication. We as a Society are indebted to them for this fine service.

2. The Second Annual University of Kansas number was published in March. All of the material for this issue was obtained, edited and sent to us by Dr. James B. Weaver, associate editor of the Journal.

3. It was a decision of the Board to continue the cancer page during 1948. The material for this page is prepared by your Committee on Control of Cancer.

4. It was decided by the Board to increase the number of scientific articles published each month from three to four. It was our opinion that this fourth article could serve as an outlet for publication of highly technical or specialized research or clinical observations of our members, the resident physicians of our hosptials and research workers at the university. We feel that publication of such articles would not only give these men an impetus to prepare valuable papers for future publication but would also aid in increasing our standing among medical publications.

5. The Board agreed that the Journal should withstand all costs for cuts for papers published up to $50. Any cost for cuts or illustrations over $50 is to be paid for by the author of the article. In the October issue last year we published our first article with four-color illustrations. These illustrations required four cuts and press runs. Dr. Wendell A. Grosjean of Winfield paid the Journal $157 for the cost of cuts and expense over and above the $50 maximum.

6. One meeting of the Board was devoted to discussion of methods and changes which would improve the Journal. Some small changes in typography were made. It was decided to retain the present cover design which was adopted several years ago. We hope that future Editorial Boards will continue to use this design until it becomes traditional of the Journal of the Kansas Medical Society. We have again rejected the entreaties of the C.M.A.B. and commercial firms for advertising space on the front cover. It is our opinion that the additional revenue from this coveted advertising spot would not offset the depreciation of the appearance of the Journal.

During the past year the Journal has received 69 scientific articles for publication. Of these, 42 have been published, 21 are on hand or in the process of review and six have been returned to the author as unsuitable for publication or for revision and resubmission. No article is returned to the author without first having been reviewed by two or more members of the Board and offtimes by a physician who is not a member of the Board and, in their combined opinion, the article is not suitable for publication at least in the form in which it was submitted. During the 13 years that I have been a member of the Board, this is the first time that we have had such a wealth of material to choose from. The Board still desires to be selective and we do and will continue to welcome good scientific articles, carefully written and original to the extent that they add something to medical literature and are not just a rehash of textbook material. It might be wise to mention here that papers prepared for presentation at medical meetings, regardless of how fine they may be for that purpose, are ofttimes not suitable for publication and require considerable revision before they are. In rejecting a paper or returning it to the author for revision, the Board is neither rebuffing nor criticizing the author. It is our desire that when an article is published over an author's name he can justly be proud of that article ten years from now.

The unofficial financial report of the Journal as of May 1, 1948, is available for examination by anyone interested. As seen by these figures, the Journal is solvent although increased printing costs and a slight reduction in revenue have combined to reduce the net income to nothing, for the first time since the war. Since the Journal has never intended to operate at a profit, we feel this is no cause for alarm but mention it to call to your attention the fact that the Journal has currently expanded to is maximum limits under the present financial structure.

The Journal this year set up a new mailing list with a private addressing company. This mailing list is broken down into sections such as members, libraries, exchanges, commercial advertisers, etc. The Kansas Medical Society and all of its component parts may use this service by paying the actual cost of addressing. Legitimate projects such as the Kansas Cancer Society, Blue Cross and Blue Shield have used this service with no expense other than the actual cost for the service rendered. Commercial firms may be given the use of the mailing list providing their copy is acceptable to Mr. Ebel and/or the Board. Such firms are charged a small fee to aid the Journal in maintaining this mailing list.

The Editorial Board discussed the project of fostering an essay contest for the junior and senior students of Kansas high schools. The Council has approved this project. It is the opinion of the Board that such a contest would foster good public relations and is a method of thwarting socialistic trends of medicine in the minds of lay people. We hope to have the machinery in operation for the contest to start this fall. Since it entails an enormous amount of work for a small group of people, it may have to be delayed a year.

We are indeed grateful and deeply indebted to Miss



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Oliver Ebel, our executive secretary and business manager of the Journal, has gleaned considerable time from his countless duties to provide counsel and editorial copy. His clear thinking and initiative are invaluable assets to the Journal and our members.

As your editor, I wish to express publicly my appreciation for the hours of work and the honest expression of their opinion to the regular and associate members of the Editorial Board, Miss Farrell and Mr. Ebel. I appreciate the cooperation and the excellent job of printing done by the Capper Printing Company of Topeka. I appreciate the efforts of those of our members and the physicians outside Kansas who have submitted scientific articles for publication. And last but not least I wish to thank the commercial advertisers for their copy and support, without which the Journal could not exist in its present form.

Remember please that the Journal is your publication. The Editorial Board is anxious to print the Journal just as you want it printed. Will you please address any criticisms or suggestions for improvement, inclusion or deletion to the Editorial Board for their guidance.

The terms of service of Dwight Lawson and Lucien R. Pyle expire with this meeting; it is the duty of the Council to fill these vacancies.

Respectfully submitted,
Lucien R. Pyle, M.D., Editor.

Kansas Physicians' Service Elects

At the annual meeting of Kansas Physicians' Service, held at Wichita May 10, 1948, the following officers were elected: president, Dr. Barrett A. Nelson, Manhattan; vice president, Dr. Conrad M. Barnes, Seneca; secretary-treasurer, Dr. Dwight Lawson, Topeka; executive vice president, Dr. Henry S. Blake, Topeka. Those officers, together with Dr. O. W. Davidson, Kansas City, make up the executive committee of K.P.S.

Members of the Board of Directors are as follows: Dr. Conrad M. Barnes, Seneca; Dr. C. H. Benage, Pittsburg; Dr. W. F. Bernstorf, Winfield; Dr. Athol Cochran, Pratt; Dr. O. W. Davidson, Kansas City; Dr. Darrel L. Evans, Manhattan; Dr. J. L. Grove, Newton; Dr. G. R. Hastings, Garden City; Dr. O. A. Hennerich, Hays; Dr. George D. Marshall, Colby; Mr. Holmes Meade, Topeka; Dr. J. H. A. Peck, St. Francis; Dr. E. M. Sutton, Salina; Mr. M. F. Trued, Topeka.

Kansas Society of Anesthesiology

The Kansas Section of the American Society of Anesthesiology, organized in December of 1947 and functioning since that time under officers elected pro tem, held its formal organization meeting in Wichita during the 89th annual session of the Kansas Medical Society.

At that meeting the following officers were named: president, Dr. Paul H. Lorhan, Kansas City; vice president, Dr. C. D. McKeown, Wichita; secretary, Dr. Harwin J. Brown, Winfield; treasurer, Dr. Harold F. Spencer, Emporia; delegate to A.S.A., Dr. Paul H. Lorhan; alternate, Dr. Floyd C. Taggart, Topeka.

As a component unit of the American Society of Anesthesiology, Kansas will be entitled to send a delegate and one alternate to the House of Delegates of the national organization, which has granted charters to all the 48 states and the District of Columbia. The Kansas group was the fifth in the nation to be organized and chartered. Kansas, Missouri and Colorado, forming the 15th director district, will send one elected member to the Board of Directors, the governing body of the A.S.A., and Dr. Richard S. McKee, Leavenworth, has been named as that representative.

The annual meeting of the Kansas Section will be held in conjunction with the annual meeting of the Kansas Medical Society. In addition, the group will hold quarterly one-day sessions in different parts of the state and will provide guest speakers for a scientific program. All physicians in those areas will be invited to attend. It has been planned tentatively that the first such meeting will be held in Salina or in Emporia, but a definite date and place have not yet been determined.

The Kansas Section plans also to put in operation a recommendation made previously that a central bureau, an Anesthetic Study Commission, be set up for the study and discussion of mortality and morbidy reports submitted by members. These studies would enable anesthesiologists to evaluate results and thereby provide better anesthesia for the surgeons and general practitioners of the state.

The group wishes to encourage young physicians doing general practice in smaller communities to do part time work in anesthesiology, and recommends that they take postgraduate work at the university to obtain knowledge of the fundamental points in administering anesthetic drugs.

Eye, Ear, Nose and Throat Section

A meeting of the Eye, Ear, Nose and Throat Section of the Kansas Medical Society was held at Wichita during the Society's annual meeting, May 10-13, 1948. The following officers were elected for the 1948-1949 term: president, Dr. Byron J. Ashley, Topeka; president-elect, Dr. N. L. Francis, Wichita; secretary-treasurer, Dr. Maurice J. Ryan, Kansas City.

Kansas Heart Association

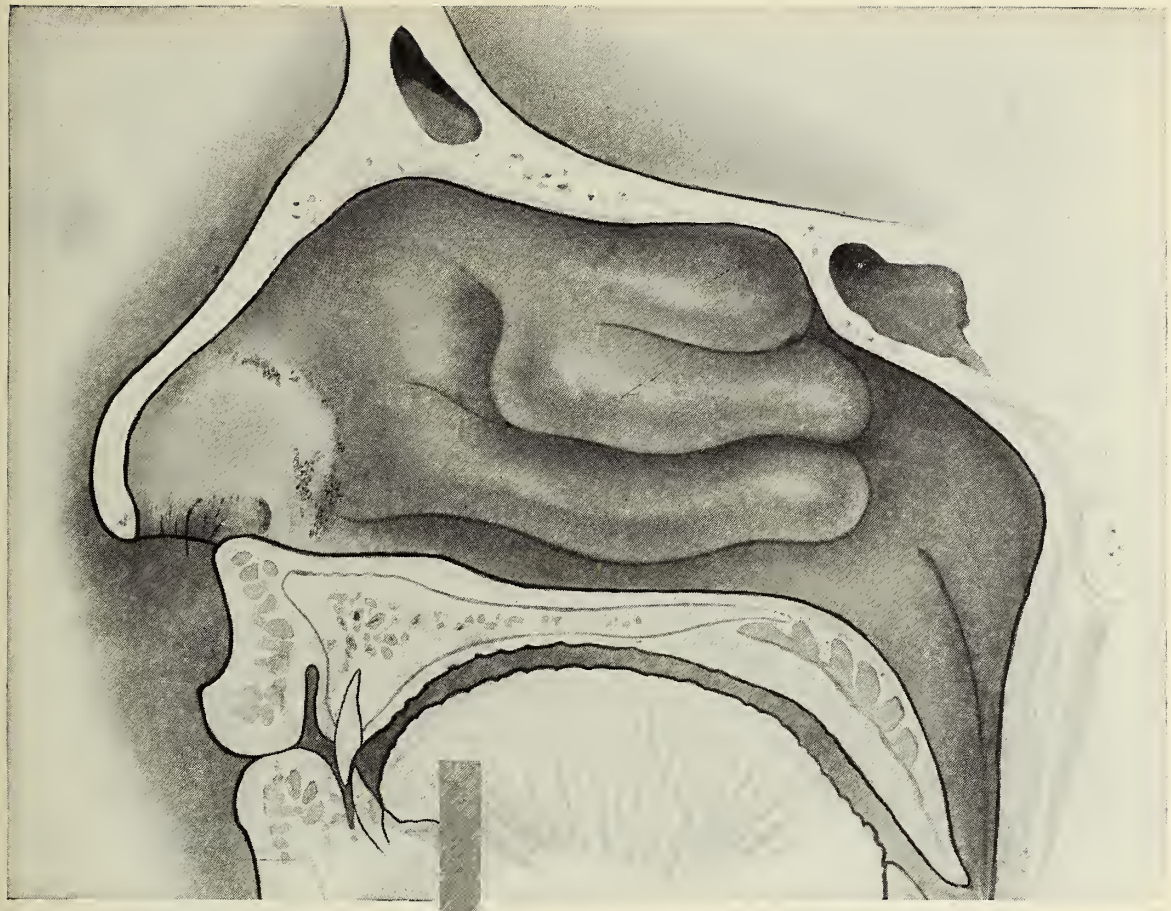
At a meeting of the Kansas Heart Association held in Wichita during the annual meeting of the Kansas Medical Society, the officers named in 1947 were reelected, Dr. Philip W. Morgan, Emporia, president; Dr. Fred J. McEwen, Wichita, vice president; Dr. Don C. Wakeman, Topeka, secretary-treasurer.

The organization planned a continuation of the past year's activities, all of which received approval from the physicians in the state interested in cardiovascular diseases. The names of members of the Kansas Heart Association formed the nucleus for a mailing list of persons to whom literature on heart disease can be sent, and this publicity has resulted in an enlarged group of doctors with a particular interest in the subject.

Radiological Society Reorganized

A group of Kansas radiologists met in Wichita during the annual meeting of the Kansas Medical Society and reorganized the Kansas Radiological Society. The purpose of the organization is to advance radiology within the state and, as a group, to present scientific methods at the annual state meeting. Three physicians were named to the Board of Governors, Dr. Leland F. Glaser, Hutchinson; Dr. Harold H. Woods, Topeka, and Dr. Anthony F. Rossitto, Wichita.

Eligibility requirements for membership are those outlined by the Radiological Society of North America, namely (1) degree of doctor of medicine or its equivalent; (2) citizenship in North America and license; (3)



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membership in A.M.A. or equivalent group with the greater part of the year's work devoted to radiology; (4) payment of dues of $10 and assessment determined by Board. Trainees and residents in radiology are granted membership without dues.

Complete information on the organization may be secured from Dr. A. F. Rossitto, Wichita Hospital, Wichita, Kansas.

Woman's Auxiliary Elects

The Woman's Auxiliary to the Kansas Medical Society, meeting at Wichita May 11, 12 and 13, elected the following officers for the coming year: president, Mrs. Clyde D. Blake, Hays; president-elect, Mrs. Charles H. Miller, Parsons; first vice president, Mrs. Laurence S. Nelson, Salina; second vice president, Mrs. John A. Billingsley, Kansas City; third vice president, Mrs. Charles Rombold, Wichita; recording secretary, Mrs. William J. Biermann, Wichita; corresponding secretary, Mrs. Barrett A. Nelson, Manhattan; treasurer, Mrs. Harold L. Collins, Beloit.

Medical Assistants Meet

The Kansas Medical Assistants' Society held its eighth annual meeting at Wichita on May 9 and 10 with more than 200 members attending. Officers elected for the coming year are as follows: president, Miss Regina Lewis, Wichita; president-elect, Miss Faye Bullard, Hutchinson; vice president, Miss Thelma Dean, Manhattan; secretary, Miss Marie Holman, Wichita; treasurer, Mrs. Virginia Foster, Winfield. Two new councilors were also named, Mrs. Bessie Parker, Emporia, and Miss Myrtle May Pollock, Haven.

Golf, Trap and Skeet Shooting Association

The Kansas Medical Golfing, Trap, and Skeet Shooting Association met in Wichita on Monday, May 10, immediately preceding the Kansas Medical Society's annual scientific program. The tournaments were held during the day with 81 taking part in the golf matches and 43 in the trap and skeet shoot. A banquet for participants was held in the evening.

Officers elected at the business session are as follows: president, Dr. Ed Ashley, Chanute; vice president, Dr. Murray C. Eddy, Hays; secretary-treasurer, Dr. J. W. Shaw, Wichita.

Prizes for golf were awarded as follows: first low gross, Dr. R. R. Howard, Winfield; second low gross, Dr. Ed Ashley, Chanute; third low gross, Dr. J. L. Lattimore, Topeka; fourth low gross, Dr. C. C. Parmley, Wichita; fifth low gross, Dr. Glen Ashley, Chanute; first low net, Dr. B. V. Thompson, Wellington; second low net, Dr. W. F. Dreyer, Independence; third low net, Dr. D. G. Holcomb, Liberal; fourth low net, Dr. G. Q. Street, Wichita; fifth low net, Dr. H. Lee Berry, Wichita.

The following were winners in trap and skeet shooting: high trap, Dr. E. A. Smiley, Junction City; second high, Dr. William Brown, Paola; third high, Dr. M. C. Eddy, Hays; high skeet, Dr. R. R. Cave, Manhattan; second high, Dr. R. E. Cheney, Salina; third high, Dr. Howard Snyder, Winfield; high over all, Dr. F. B. Poling, Wichita; second high, Dr. George L. Gill, Sterling.

Members of the association wish to express their thanks for the fine prizes awarded. Those who donated and the awards presented are as follows: Abbott Laboratories, estrone aqueous; A. S. Aloe Company, Zimmer bone drill; American Optical Company, sun glasses; Archers, gift certificate; Burroughs Wellcome and Company, portable ice box; Ciba Pharmaceutical Company, Perandrem; Dockum Drug Company, billfold and keyring; Eilerts Drug Company, thermometer; Hawk's Pharmacy, dozen golf balls; Eli Lilly and Company, six golf balls; Mead Johnson and Company, two clocks, two pen sets; Mid-West Surgical Supply Company, two fishing guides, two thermometers; Munns Surgical Supply Company, surgical needles; Quinton-Duffens Optical Company, golf championship trophy; Rice County Medical Society, cooking set; Riggs Optical Company, sun glasses; Ruby Drug Company, caddy cart, electric fan; Spears Pharmacy, electric shaver; E. R. Squibb and Sons, Squibb Book of Health; Sumner County Medical Society, baby kit; Tilford Drug Company, Parker 51 pen; C. Ray Tyler, dozen golf balls; Wyeth, Inc., insufflator kit.

Forum at Winter VA Hospiatl

The Seminars Council of the Menninger Foundation School of Psychiatry and Winter Veterans Hospital extend a cordial invitation to all members of the Kansas Medical Society to attend a forum at the hospital at 7:30 p.m., July 7, 1948. Dr. Franklin D. Murphy, dean-elect of the University of Kansas School of Medicine, will speak on "Concepts of Medical Education."

Conference on Analgesics

Scientists and narcotic law enforcement officials met in New York May 14 and 15 to discuss the newer synthetic analgesics, Demerol, Methadon and a compound as yet unnamed. The conference was organized by Dr. Maurice L. Tainter, director of the Sterling-Winthrop Research Institute, under the auspices of the New York Academy of Scientists. The session provided an opportunity for discussion of regulatory problems under the Harrison Narcotic Act.

Life Insurance Mortality Reports

The death rate from all causes among life insurance policyholders in the United States reached a new low in 1947 at 737.9 per 100,000, with declines shown for practically all causes of death including heart disease and cancer, the Life Insurance Association of America reports. The previous lowest rates were in 1946 (773.1) and in 1942 (763.9).

Heart diseases of all kinds constituted the leading cause of death among policyholders last year, with nearly half of all deaths included in the survey attributed to heart disease, cerebral hemorrhage and nephritis. The combined death rate from cardiovascular-renal diseases was 361.5 per 100,000 policyholders.

Cancer, the second leading cause of policyholder deaths, also declined during 1947, the first drop in several years. The 1947 death rate of 114.8 compares with 116.9 in the previous year and 106.8 in 1942. Cancer deaths terminated an estimated 200,000 life policies last year.

World Medical Council Visits A.M.A.

Fourteen members of the Council of the World Medical Association, which met in New York late in April, concluded their visit in this country with a tour of the A.M.A. offices and other medical institutions in Chicago and a trip to the Mayo Clinic at Rochester, Minnesota.

The group was met in Chicago by Dr. Ernest E. Irons, secretary of the board of trustees of the A.M.A., Dr. George F. Lull, secretary and general manager, and Dr. Ernest B. Howard, assistant secretary. The delegation toured the University of Illinois Medical Center, Northwestern Medical School, the University of Chicago and the Museum of Science and Industry.

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1. If you feel sick, call your doctor at once. Don't wait for a serious illness to develop before you ask his help. The sooner he sees you, the more he can do to help you avoid a major illness.

2. Before you telephone your doctor, make a list of the questions you want to ask him. Have a paper and a pencil handy when you call, so that you may take down his instructions. This way you will save your doctor's time, and remember *accurately* what he tells you.

3. Answer your doctor's questions *fully*. A previous illness may not seem to you to have any bearing on your present condition. But to your doctor it might furnish a valuable clue. Tell him complete facts. Let *him* decide what is important.

4. Follow your doctor's instructions *exactly*. If he prescribes medicine, take it *according to directions*. Remember, a larger dose than that prescribed won't cure you faster. And it might be harmful.

5. Never use medicine prescribed for somebody else, or for a previous illness of your own. However similar your symptoms may appear to you, the nature of your illness may be quite different. Only your doctor can accurately diagnose your trouble and prescribe proper treatment.

6. If your doctor advises an operation, don't put it off. With modern surgery, modern hospital care, you seldom have reason to fear an operation.

7. The new medical treatments you read about in the popular press aren't likely to be news to your doctor. If your doctor has not recommended a new treatment to you, it is probably because there are still some questions about its value, some limitations not stressed in popular reports, or some factors in your case which would make the treatment undesirable or ineffective for *you*.

8. Don't ask your doctor to advise you about members of your family whom he himself has not seen. He cannot risk giving an opinion about a patient of whose condition he has no firsthand knowledge.

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COUNTY SOCIETIES

The Shawnee County Medical Society held a dinner meeting May 3 honoring Dr. M. L. Perry, who recently retired after having served as superintendent of the Topeka State Hospital for 30 years. For the scientific program Dr. Clarence Erickson of Pittsburg spoke on "The Management of Acute Nephritis."

* * *

The Labette County Society met April 28 at Parsons. Dr. M. L. Bauman, director of the county health department, told of the work of the public health service.

* * *

The Marshall County Society met at the Marysville Country Club April 22 and had members of the Auxiliary as guests at a dinner. Later Dr. F. C. Beelman, Topeka, executive officer of the Kansas State Board of Health, and Dr. John Porter, Concordia, addressed the meeting.

* * *

Dr. W. W. Leifer, Kansas City, was guest speaker at a meeting of the Crawford County Society held April 29 at the Hotel Besse, Pittsburg. He discussed treatment of infections of the genito-urinary tract.

* * *

The Pratt County Society entertained doctors of that area at a dinner meeting at the Roberts Hotel April 27. Forty physicians were present. Dr. Charles Rombold, Wichita, spoke on the treatment of fractures of the femur and Dr. H. O. Anderson, also of Wichita, discussed the significance of foot pain.

* * *

Members of the Franklin County Society entertained the Auxiliary at a dinner meeting at Ottawa April 28. The guest speaker, Dr. Robert Murphy of Kansas City, discussed skin diseases.

* * *

Members of the Riley County Society were guests of the Auxiliary at a dinner party at the Wareham Hotel, Manhattan, April 28.

* * *

The Sumner County Society entertained the Barber and Harper County Societies at a meeting at Caldwell May 20. Dr. Philip E. Getscher, Wellington, spoke on "Hanging Casts for Fractures of the Humerus."

* * *

A dinner meeting of the Cowley County Society was held at the Arkansas City Country Club May 20. Speaker of the evening was Dr. E. L. Gann, Kansas City, Missouri, who discussed "Diagnosis, Treatment and Prevention of Deafness in Children."

* * *

The Saline County Society met at the Lamer Hotel, Salina, May 20. Dr. Robert F. Maxwell, Wichita, presented a scientific paper and Dr. Maurice Snyder, Salina, reported on a recent medical meeting in San Francisco.

Research in Human Reproduction

Announcement was made recently of the organization of the first comprehensive program for research in the field of human reproduction, following a meeting of the reorganized board of directors of the National Committee on Maternal Health. The program will be under the direction of the National Research Council in Washington, and a committee will be established to plan procedure. The Planned Parenthood Federation of America will collaborate.

The main studies of the commission will center on the following five fields: the physiology of and the factors controlling conception, the causes of sterility and treatment for infertility, maternal and fetal physiology and clinical disorders developing during pregnancy, psychological problems of marriage and the family relationship, and the population aspects of these problems, social, economic and medical.

Health in the United States

The general health of the people of the United States, maintained during the war years at a higher than pre-war level, continued favorable during the first six months of 1947, according to Federal Security Administrator Oscar R. Ewing in a recent report.

The reported incidence of most of the important communicable diseases, the crude death rate, maternal and infant mortality, and the specific death rates for certain diseases indicate as good health conditions in the United States during the first half of 1947 as in 1946, if not slightly better, he said.

Lower incidence than for the same period last year was reported for diphtheria, the dysentaries, malaria, measles, meningococcus meningitis, mumps, poliomyelitis, scarlet fever, smallpox, typhoid fever and typhus fever. However, increases were reported for chickenpox, influenza, tularemia, undulant fever, whooping cough and septic sore throat.

Statistics on Marriage and Divorce

Figures on marriage and divorce for the 80-year period from 1867 to 1946 have been released by the National Office of Vital Statistics. They show that six times as many marriages took place last year in the United States as in 1867, and that 60 times as many divorces were granted in 1946 as in 1867.

Figures for both marriages and divorces reached record highs in 1946. There were 2,285,539 marriages and 613,000 divorces in the year just passed. Marriage and divorce rates, that is the number of marriages and of divorces for every 1,000 persons, also reached record levels in 1946—16.3 marriages per 1,000 population and 4.3 divorces. Comparable rates for 1867 were 9.6 for marriage and 0.3 for divorce. Although marriage rates tended to fluctuate throughout the 80-year period, falling below the 1867 level as late as 1933, divorce rates increased steadily, except in a few scattered years.

New Children's Services

Many new projects are now being set up throughout the country with part of the increased federal funds made available last August for children's services under the Social Security Act. They are being developed by state health departments and state crippled children's agencies under plans approved by the U. S. Children's Bureau.

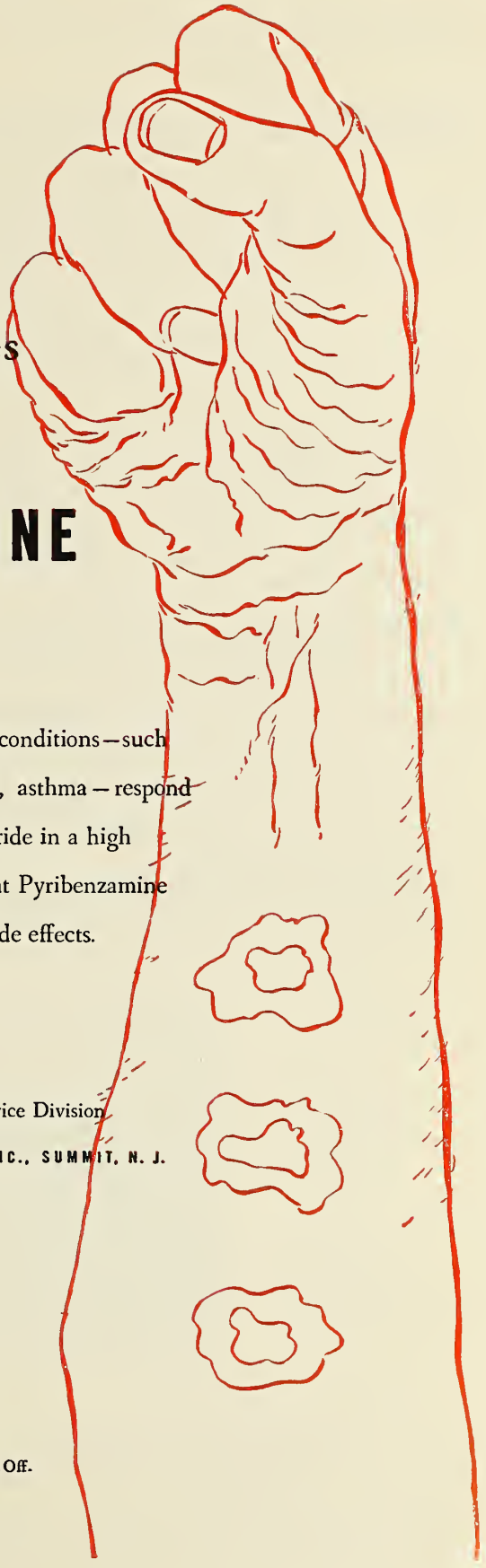
Federal funds for state and local health services for mothers and children now total $18,500,000 a year. Of that total, $3,375,000 is allocated for demonstration projects, $1,500,000 for maternal and child health services and $1,875,000 for services to crippled children.

One state is now pushing ahead on the care of children with rheumatic fever; another is working on a dental health program; a third is inaugurating a plan for children with cerebral palsy; still another is working with children who are hard-of-hearing. Some are working on training programs in cooperation with medical centers.

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MEMBERS

Dr. L. A. Donnell, a member of the Sedgwick County Society, has been elected mayor of the city of Wichita.

* * *

Dr. M. Leon Bauman, Parsons, was recently named president of the Kansas Public Health Association, and Dr. James M. Mott, Lawrence, was chosen as president-elect.

* * *

Dr. H. E. Haskins, Kingman, and Dr. M. C. Ruble, Parsons, were recently reappointed by Governor Frank Carlson to four-year terms on the Kansas State Board of Medical Registration and Examination.

* * *

The Axtell Clinic, Newton, announces that Dr. Hoyt Blaylock is now practicing there. Dr. Blaylock was graduated from the University of Kansas School of Medicine, interned at Wesley Hospital, Wichita, and was recently released from military service.

* * *

Dr. Irene Koeneke, Halstead, recently addressed medical meetings at Houston, Texas, and Mexico City.

* * *

Dr. James B. Weaver, Kansas City, was speaker at a recent meeting of the Marysville Rotary Club and told of the work of the Kansas Crippled Children Commission.

* * *

Dr. Milo G. Sloo, who has practiced in Topeka for almost 40 years, recently announced his retirement.

* * *

Dr. John Fairchild, who has been practicing in De Soto, has announced that he will move soon to Manhattan to practice there. Dr. Milton Dodge, Eudora, will take over Dr. Fairchild's practice in De Soto.

* * *

Dr. Robert Young, Fort Scott, has returned from a year's residence in Honolulu where he studied orthopedic surgery.

* * *

Dr. T. C. Hinkle, Onaga physician for the past eight years, has announced that he will move soon to Ithaca, New York.

* * *

Dr. G. W. Hammel, El Dorado, recently took the examination given by the American Board of Internal Medicine and was made a diplomate of that board.

* * *

Dr. F. M. Shonkwiler, Emporia, has resigned his position as Lyon County physician, a post he has held for 12 years.

* * *

Dr. M. L. Perry, who recently resigned as superintendent of the Topeka State Hospital, was guest of honor at an open house given by the Kansas Department of Social Welfare and the medical staff and employees of the hospital.

* * *

Dr. William C. Menninger, Topeka, who served as chief of the Army medical department's psychiatric division during the war, was recently honored by the French government for his contributions to the mental health of the allied forces. He was given the insignia of Chevalier in the French Legion of Honor.

* * *

Dr. C. E. Petterson, who has been on the staff of the state sanatorium at Norton, has joined the staff of the Southwest Clinic at Syracuse.

* * *

Dr. Henry H. Luster, Topeka, has been elected to membership in the Central Division of the American Society for Electroencephalography and to the American Association for the Advancement of Science.

* * *

Dr. Karl Menninger, Topeka, in collaboration with Dr. A. H. Gottesman, has prepared a paper on the dermatologist and the psychiatrist for presentation at the June meeting of the American Medical Association in Chicago. Dr Gottesman will present the paper.

* * *

Dr. W. F. Bernstorf, Winfield, attended a meeting of directors of the American Association of Physicians and Surgeons at Chicago in May. Dr. Bernstorf is also serving as a director of the Ambulatory Fracture Association which will meet in Washington, D. C., in October.

* * *

Dr. Lewis L. Robbins, Topeka, president of the Kansas Psychiatric Society and director of the outpatient division of the Menninger Foundation, has been elected chairman of the Committee on Social Work for the Group for the Advancement of Psychiatry. He has also been elected to membership in the A.P.A. committee on social work and in the American Orthopsychiatric Association.

* * *

Two members of the Sedgwick County Medical Society who have completed 50 years of practice, Dr. J. W. Cheney and Dr. A. P. Gearhart, were honored by the society at a meeting held May 25 and were given engraved keys in recognition of the occasion. Both physicians were graduated from medical school in 1898 and both have served the Sedgwick County Society in many capacities, including the office of president.

* * *

Dr. Lucien R. Pyle, Topeka, has been elected to membership in the American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

* * *

Dr. P. H. Hostetter, formerly of Baldwin, has joined the staff of the Hertzler Clinic, Halstead, to specialize in internal medicine.

SCIENTIFIC EXHIBIT AWARDS

(Continued from Page 248)

on "Cancer of the Colon and Rectum" prepared by Dr. J. E. Bleicher of St. Francis Hospital, Wichita. "Common Disabilities of the Feet" was the title of the exhibit winning third place, prepared by Dr. C. R. Rombold, Dr. H. O. Anderson and Dr. H. O. Marsh, Wichita.

It is planned that this will be continued as an annual custom, and the invitation is now given to all Kansas physicians to plan toward entering the scientific exhibit and competition at the time of the 1949 meeting to be held in Topeka. Again the selection will be made by out-of-state guest speakers and plaques will be awarded the winners of the first three places. It is hoped that this recognition for individual scientific work will stimulate interest in expanding the scientific exhibit section of our state meeting.

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ALTON OCHSNER, M.D., Professor and Director of Surgery, Tulane.

JOHN H. LAWRENCE, M.D., Chairman, Division of Medical Physics, University of California.

ALFRED W. ADSON. M.D., Senior Surgeon, Mayo Clinic.

JOHN W. BUDD, M.D., Pathologist, Los Angeles Tumor Clinic.

FRED W. RANKIN, M.D., Clinical Professor of Surgery, Louisville.

MORRIS K. BARRETT, M.D., National Cancer Institute, Bethesda.

C. HOWARD HATCHER, M.D., Associate Professor of Orthopedic Surgery, University of Chicago.

RICHARD H. SWEET, M.D., Instructor in Surgery, Harvard Medical School.

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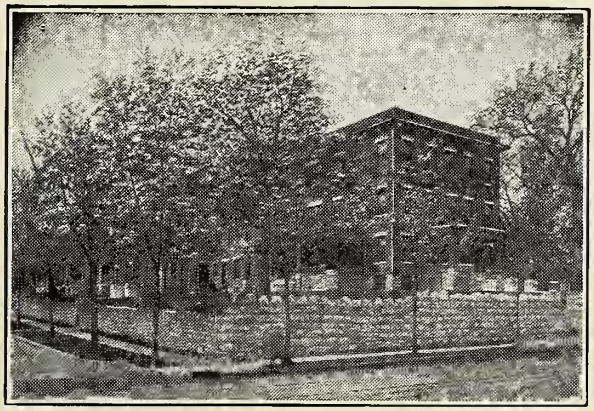
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Pamphlets on Hospitals Available

Communities or local groups planning to build hospitals will be interested in a series of five pamphlets recently issued by the United States Public Health Service, Washington 25, D. C. The pamphlets are available without charge to all who request them.

The first of the five is "The Hospital Act and Your Community," and the others are "Why We Need More Hospitals," "What Is a Hospital System," "Hospital Quiz," and "The Hospital Survey and Construction Program."

Renews Interest in Cosmetics

The Council on Pharmacy and Chemistry of the A.M.A. is renewing its interest in the field of cosmetics and is now building a file on the subject to meet inquiries of physicians and their patients. Among other things the file will include the causes of reactions that occur following the use of some cosmetics.

Blackwell Memorial Hall Planned

Plans to erect a medical women's library and auditorium on the campus of the Woman's Medical College of Pennsylvania in Philadelphia, to honor the memory of the first woman doctor in the world, Dr. Elizabeth Blackwell, are now being completed by the American Medical Women's Association, Inc. Contributions are being accepted now and a special drive was held on November 7, 1947, the hundredth anniversary of Dr. Blackwell's birth.

Schering VA Program

The Schering Corporation, manufacturers of endocrine, x-ray diagnostic and chemo-therapeutic products, has completed a series of technical exhibits on new products developed during the war years, featuring three Schering council accepted products, and is planning a tour of the country with scheduled stops at Veterans Administration hospitals. The tour is in keeping with the new policy of the Veterans Administration, designed to help its medical and pharmaceutical personnel keep abreast of progress in therapy and research.

To Direct Red Cross Blood Program

Dr. Louis K. Diamond, authority on hematology and assistant professor of pediatrics at Harvard medical school, has been named technical director of the American Red Cross National Blood Program, according to a recent announcement by Dr. Ross T. McIntire, administrator of the program. Dr. Diamond will plan and supervise technical phases of the new program, designed eventually to provide blood and blood derivatives to the entire nation without charge.

To Study Effect of War on Children

Dr. David Levy, professor of psychiatry at Columbia university, New York, has been awarded a $20,000 research grant for the conduct of a study of the effect of war on children. The award was made to the International Committee on Mental Hygiene under the National Mental Health Act, at the recommendation of the National Advisory Mental Health Council, and with the approval of Surgeon General Thomas Parran. The results of the study will be presented at the International Congress on Mental Health to be held in London in August, 1948.

DEATH NOTICES

WILLIAM JAMES WALKER, M.D.

Dr. W. J. Walker, 72, Topeka physician for more than 25 years, died in a Halstead hospital April 29. He was an honorary member of the Shawnee County Medical Society and at one time had served as its president. After his graduation from the University Medical College of Kansas City in 1907, Dr. Walker practiced in Osage City, then specialized in eye, ear, nose and throat work in Topeka. Later he was on the staff of the S.B.A. hospital at Topeka and most recently was on the staff of the Santa Fe hospital.

* * *

JAMES ALBERT FULTON, M.D.

Dr. J. A. Fulton, 68, who had been specializing in anesthesiology in Kansas City for 43 years before his retirement in 1946, died May 9. He studied medicine at the College of Physicians and Surgeons, Kansas City, and became interested in anesthesiology immediately after his graduation. He continued to practice that specialty except for an interruption during World War I when he entered the service as a medical officer. He was an honorary member of the Wyandotte County Medical Society.

* * *

WILLIAM NELSON JOHNSON, M.D.

Dr. W. N. Johnson, 94, a practicing physician at Columbus until he suffered an illness in April of this year, died at his home there May 11. A graduate of the Kentucky School of Medicine at Louisville in 1894, Dr. Johnson came to Kansas shortly after that date and began practice in Cherokee county. He held honorary membership in the Cherokee County Medical Society.

* * *

ALVA L. COWDEN, M.D.

Dr. Alva L. Cowden, 73, a member of the Crawford County Society, died at Pittsburg May 15. He was graduated from the University Medical College of Kansas City in 1900 and practiced in Oklahoma for several years before moving to Pittsburg. He was interested in civic affairs and had served three terms as mayor of Pittsburg, 1929 to 1935.

* * *

CORNELIUS OSCAR ANDERSON, M.D.

Dr. C. O. Anderson, 74, who had specialized in surgery in Concordia from 1924 until his retirement in 1941, died April 30. He was a member of the Cloud County Society. He received his medical education at Northwestern University, interning at Cook County Hospital, and he later had a year's postgraduate work in New York. He practiced first in North Dakota, opening his office in Concordia in 1924.

* * *

CARL J. CRAMM, M.D.

Dr. Carl J. Cramm, 72, a member of the Central Kansas Medical Society, died at Ellsworth April 14. A graduate of the University of Louisville (Kentucky) School of Medicine in 1897, Dr. Cramm had practiced in Russell since 1910.



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ABSTRACTS

Wounds of the Heart and Pericardium

Further Observations on Penetrating Wounds of the Heart and Pericardium. Charles High Maguire and R. Arnold Griswold. Am. J. of Surg., LXXIV:5, 721-731 (November) 1947.

The authors review an additional 33 cases of penetrating wounds of the heart and pericardium (they had previously reported 47 such cases in 1941). In diagnosis they indicate that the signs of collapse and shock will be out of proportion to the extent of the obvious wound. If acute tamponade is present the triad of Beck will appear, or low or falling arterial pressure, high or rising venous pressure, and a quiet heart. Pulse rate is apt to be low. Fluoroscopy reveals widening of the cardiac shadow with diminished or absent pulsation. However, if the pericardium has been lacerated into the pleura these signs disappear and are replaced by those of hemothorax and acute hemorrhage.

The technic of operation is presented and includes a transverse incision over the rib nearest the wound of injury, resection of the underlying rib, and division of the adjacent costal cartilages if necessary. The blood in the pericardial sac is aspirated into an auto-transfusion outfit and reinjected (as much as 2500 cc. has been restored to the patient in this way). A silk traction suture is placed in the apex of the heart if the wound of injury is not readily accessible. Further loss of blood is prevented by a finger placed over the hole in the heart which is closed with interrupted silk sutures. Care is taken to avoid penetration of the endocardium to avoid mural thrombi. Where hemorrhage is difficult to control, gelfoam is tied over the bleeding points.

The accumulation of fluid in the pericardial sac, even in the absence of further hemorrhage, demands drainage which is supplied by opening the pericardium into either pleural cavity. Pleural paracenteses may then be necessary during the first and second days and are performed as indicated by observation and x-ray before embarrassment of respiration can occur.

Brief case histories are cited and the suggestion is offered that anti-coagulant drugs may be advisable to prevent cerebral embolism from mural thrombi which occurred in some instances.—*T.P.B.*

* * *

Nutrition and the Adolescent

Nutritional Requirement of the Adolescent and its Relation to the Development of Disease; J. A. Johnston. Am. J. Dis. Child., 74:487-494 (October) 1947.

It is evident that the processes of growth in this period can be understood only by ignoring chronologic age and thinking in terms of physiologic age, a concept which involves ideally a continuous record of a person, the gradual acquiring of which may have taken 12 to 14 years of a pediatrician's supervision.

The basal metabolic rate during this period tends to become elevated before maximum growth and become depressed following the period of maximum growth. This instability in metabolism would, in turn, favor an increase in the hyperthyroid states noted in the postpuberty period. At the Mayo Clinic 78 per cent of 157 cases of hyperthyroidism in children occurred between the ages of 10 and 14. Mild hyperthyroidism should be borne in mind as a conditioning factor in the case of the high school child whose scholastic and extracurricular schedules may require drastic modification. Fatigue, pallor, a falling off in scholastic performance and menstrual irregularities are the commonest presenting complaints suggesting the presence of hypothyroidism.

The retention of calcium and nitrogen is greatest about a year before puberty, but this adequate storage becomes depleted following onset of menstruation, unless adequate nutrition is maintained. The diminished ability to retain these substances becoming more pronounced as the termination of growth is approached, may be an important factor in undermining nutrition and in conditioning unfavorable resistance to disease when the intake is marginal. There is a need of vitamin D during this period of growth, at least 1000 to 1500 U.S.P. units. This aids in calcium retention and utilization. The optimal amount of calcium per day is 1.4 gms, a quart of milk contains 1.1 gms. Any deficiency in this total amount of calcium should be supplemented with basic dicalcium phosphate.

Bone disorders occur with changing rates in rapidity of growth. Conditions encountered are adolescent rickets, slipping of the upper femoral epiphysis and vertebral epiphysitis. Adolescent obesity is not the result of hypothyroidism. The reported lowered B.M.R. is an error referable to the use of surface standards for a type of body built in which the adipose tissue introduces an error into the calculation. The management of these cases is dietary.

The factors at play during the decelerating phase of growth in adolescence would seem to bear a reciprocal relation to mortality from infection. This is notably true in the case of tuberculosis. The child known to react to tuberculin should be examined roentgenographically at least once a year throughout adolescence, and oftener if intercurrent infection occurs.

The menstrual problems of the adolescent girl are greatly lessened if she has adequate nutrition, especially protein and calcium, and adequate out door activity. Active gymnasium and outdoor exercise has actually been shown to shorten notably the time of painful menses, when contrasted with a plan which provided for rest during the menstrual period. Glandular dysfunction, particularly thyroid, is not uncommon, and five per cent of the authors' patients' gynecologic examinations revealed organic difficulty.—*D.R.D.*

* * *

Mirror Movements

Mirror Movements. Smith, C. K. Am. J. Dis. Child., 73:175-177 (Feb.) 1947.

A child who exhibited mirror movements of the upper but not the lower extremities is described. Physical and neurologic examinations were within normal limits except that whenever one hand or arm moved, the other hand or arm would move in an "exactly symmetric fashion. The legs, however, could be moved independently of each other." This anomalous behavior was first noted by the mother when the child was two months of age.

The father of the patient manifests the same abnormal movements. Until the age of five he was unable to move one hand without moving the other. When he learned to write with his right hand, the left hand wrote under the school desk mirror wise. Although at present he has learned to un-coordinate the movements of his hands to some extent, he still exhibits some of these mirror movements.

Several theories of the etiology of this condition are presented. The most tenable is that since the most natural movements for one hand are the mirrored movements of the opposite hand, the most automatic movement will result from the contraction of the same set of muscles. The

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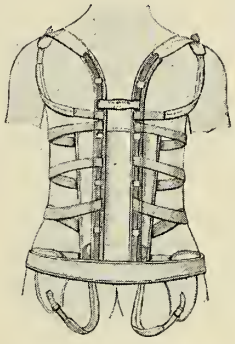
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problem for these patients is to learn to un-coordinate their movements. As patients grow older, this can in part be achieved.—*D.R.D.*

* * *

Thromboangiitis Obliterans

Thromboangiitis Obliterans: A Summary of Recent Trends and Treatment. LaFona, S.R., and Le Fevre, Fay. Cleveland Clinic Quarterly, 15:1, 12-17 (Jan.) 1948.

These authors discuss various newer therapeutic agents or procedures in thromboangiitis obliterans, acute and chronic.

1. Anticoagulants—Various references in the literature are reported and the conclusion is reached that conservative evaluation indicates that anticoagulants should be employed in acute cases. In chronic form, they probably are not indicated.

2. Histidine and vitamin C—The technic of administration is reviewed: give 500 mg. of sodium ascorbate. Then immediately give 5 c.c. of 4 per cent solution of histidine monohydrochloride and simultaneously 100 mg. of sodium ascorbate subcutaneously. Repeat this every four hours. In addition, give 600 mg. of ascorbic acid daily by mouth. Two patients observed by the authors for 10 days did not improve. However, Egeberg believes two or three months of continuous treatment may be necessary.

3. Tetraethyl amonium chloride—Technic: 300 mg. in 3 c.c. of distilled water, intramuscularly daily for three to six weeks. These authors report good results in three chronic cases. They conclude that it is a promising drug.

4. Sympathectomy—These authors treated eight cases by lumbar sympathectomy. Five returned to normal activity, two did not respond, and one improved only slightly. Other reported series are likewise favorable, but cases should be selected on the basis of vasoconstriction, demonstrated by tetraethyl ammonium chloride or lumbar sympathetic block.

5. Lumbar sympathetic nerve block—Recommended in treatment of acute cases and as diagnostic method for predicting effectiveness of sympathectomy.

6. Caudal anesthesia—Authors have used this in relieving pain of acute thromboangiitis obliterans. They believe it offers some advantage over paravertebral block in this and other forms of peripheral vascular disease, and emphasize that avoidance of tobacco, careful foot hygiene, and physical therapy are still important measures in treatment.—*E.J.R.*

* * *

Tumors of the Carotid Body

Tumors of the Carotid Body. Lahey, Frank H., and Warren, Kenneth W. Surg., Gyn. and Obs., 85:281-288, (Sept.) 1947.

The carotid body, situated near the bifurcation of the common carotid artery, develops slowly to the age of 20 or 30 years and is normally about five mm. in diameter. Its pathology is limited to tumor formation up to 190 grams. Some 15 to 20 per cent become malignant. Three hundred cases have been reported up to 1943, and the authors add 18 more. The differential diagnosis must include three other single discrete laterally located and movable tumors of the neck. These are:

1. Branchial cyst. This cyst is superficial and traction will frequently demonstrate the sinus tract extending up beneath the digastric muscle to the region of the tonsil. Caroid body tumors are usually situated higher and more deeply and may bulge into the pharynx.

2. Solitary lateral aberrant thyroid tumor may require microscopic examination to differentiate it from carotid body tumor.

3. Neurofibroma, which may happen to occur in this region, may be equally confusing.

Symptoms from carotid body tumor may be absent or may result from disturbances of such structures as the esophagus, pharynx, vagus, laryngeal, or the sympathetic nerves.

Surgical excision may be seriously complicated by the tumor having encircled the carotid artery, making common carotid ligation necessary if the tumor is to be removed. In this case, the mortality runs 30 per cent, and in persons surviving the operation seven per cent show cerebral damage. Carotid pressure performed regularly in anticipation of surgery may afford some protection. If the patient is unable to develop tolerance to such pressure he is nearly certain to succumb to ligation.

The authors conclude:

1.) Preoperative diagnosis in tumors of the lateral side of the neck is difficult and frequently erroneous (50 per cent).

2.) Aberrant thyroid tissue is frequently malignant and branchial cysts can easily be removed. Therefore, all such tumors should be explored surgically.

3.) If a carotid body tumor is found to surround the internal, external, and common carotids completely, removal by ligation of the common carotid and internal and external carotids should be done only when biopsy demonstrates the tumor to be truly of malignant character.

4.) Operation should not be undertaken until the patient is able to tolerate carotid compression for a period of 10 minutes three times a day without symptoms.

5.) When ligation of the common, internal, and external carotids is done it should be accompanied by ligation of the internal jugular vein and the patient should be kept in head-down position in an oxygen tent for a considerable time after operation.—*T.P.B.*

* * *

Dolophine

Early Clinical Experience with Dolophine. Scott, W. W., Livingstone, Huberta M., Jacoby, J. J., and Broberg, Gail R. Anesth. and Analg., 26:18-21, (Jan.-Feb.) 1947.

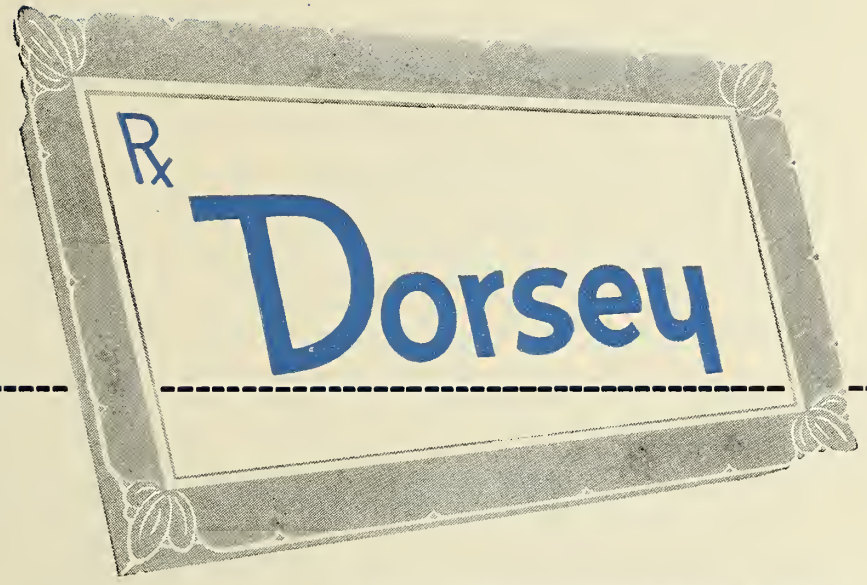
In February, 1946, Scott and Chen reported work done on the pharmacology of a new synthetic analgesic obtained from Germany and bearing the German serial number 10820. Recently the name dolophine has been adopted by its United States manufacturers. During the course of six months the authors used dolophine as a preanesthetic agent, as a postoperative analgesic and for the relief of pain associated with metastatic carcinoma and renal and ureteral stone. Early in their experience they used only a small oral dose of 2.5 mg. Later they increased the dosage to 7.5 to 10 mg. They reported the use of this drug in a total of 112 cases. In their experience its action was quite similar to morphine, but apparently it causes less nausea and emesis and less respiratory depression. Close observation leads the authors to believe that dolophine, like morphine, has parasympathetico-mimetic action. Time alone will determine whether or not tolerance is developed in humans and whether or not habituation occurs. As a preanesthetic agent alone it appears to be inferior to morphine, causing little or no euphoria and leaving the patient apprehensive. When combined with sodium pentobarbital, satisfactory premedication was obtained in the majority of instances.—*H.F.S.*

* * *

Penicillin in Intestinal Obstruction

A Summary of Observations on Penicillin in Experi-

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mental Intestinal Obstruction. Blain, Alexander, Ann Arbor, Michigan.

Studies on the effect of penicillin in experimental types of intestinal obstruction are reported. In an attempt to produce an obstruction resembling that found in man, a strangulated low ileal obstruction was produced in dogs by first completely occluding the bowel lumen and then tying off the mesenteric veins to a 60 mm. segment of the obstructed bowel. The resulting obstruction showed severe strangulation. The control dogs' intestines all showed mucosal ulceration and massive bacterial invasion superimposed on the venous infarction accompanied often by perforation. Peritonitis eventually developed whether or not there was perforation. The lesions in similar obstructions which had been treated with 100,000 units of penicillin every two hours for 24 hours, 50,000 units every two hours for the next 48 hours, and 50,000 units every four hours during survival of those dogs weighing less than 16 kg. always showed a marked bacterial invasion, but this was appreciably less than that of the control animals.

Thirteen dogs with this obstruction, treated with whole blood, gelatin and physiologic saline died within 36 hours. Seven dogs treated similarly but also with massive doses of penicillin, survived 50 to 100 hours. There were five late resections performed (72 hours) in penicillin treated animals, and four were cured. This represents a period twice the survival of any control dog. In two treated dogs and in one control, volvulus of the strangulated bowel converted simple strangulated obstructions into strangulated closed loop obstructions. It was thus shown that penicillin could prolong the lives of animals with the strangulated obstruction chosen, and that this prolongation was limited.

It is suggested that massive antibacterial therapy for acute mechanical small bowel obstruction in man is warranted. This should significantly lower the present intestinal obstruction mortality. Penicillin should not be regarded as a means to delay operation.—*J.J.H.*

* * *

Hospital Rooming-In Unit

A Hospital Rooming-In Unit for Four Newborn Infants and Their Mothers. Jackson, E. B., Olmsted, R. W., and Ryan, L. R. Pediatrics. 1:28-43 (January) 1948.

Rooming-In is the term currently in use to designate the hospital arrangement whereby a mother may have her new born baby in a crib by her bedside whenever she wishes. The authors report observation and study of disturbed children and parents and consider hospital nursery regime for newborns as one probable source of difficulty. It is possible that the separation of mother and infant after delivery results in a frustrating experience for those mothers who want to love and enjoy their babies. Separation also imposes a rigid schedule for both as a pattern of procedure from the time of the baby's birth throughout infancy with too little regard for newborn needs and gradual development changes, for individual variations or for the particular stresses of the mother in her adjustment to the care of the newborn child.

The rooming-in plan was made available only to mothers expressing a definite desire to participate after they were informed of such facilities being made available. The following criteria were selected as the most applicable for the beginning of the project in 1944, which would tend to include the mothers most desirable for the rooming-in unit; the mother's wish to breast feed her baby; the absence of gross emotional or social problems; at least average intelligence of the mother; the mother's positive interest in rooming-in, including the father's assent.

The mixing of primiparous and multiparous mothers has seemed to be an asset to the pleasant atmosphere of the unit.

The mother is interviewed regarding the plan during the early months of pre-natal visits. No mention of rooming-in was ever made to the mother who did not want to nurse her baby, who was obviously disturbed or below par mentally.

If a bed is available following delivery, mother and baby together are taken directly to the unit. The father is allowed to accompany them and remain for a short visit. The mother is allowed to keep the baby by her bedside, or if she prefers and particularly if the delivery has occurred at night, the baby may be taken to the unit nursery. In this case he is returned to the mother's bedside whenever she requests or at the time of the first nursing.

As soon after birth as possible each baby is examined by the pediatrician, who discusses his findings with the mother. During the hospital stay the mother is allowed to have the baby at her bedside as much as she wishes. The mothers in this study took care of their babies whenever they desired, the unit nurse assuming the care whenever the mother wished to rest. By the fourth to fifth day in the unit most of the mothers felt quite self sufficient and confident and were caring for the babies entirely by themselves. Almost without exception, the mothers have spontaneously expressed at the time of discharge their feeling of confidence and their appreciation for the unit facilities in making this possible.

The mothers were encouraged to nurse their babies when they were awake and apparently hungry. Neither mothers nor babies were awakened for any routine care, this being done only during normally awakened periods. The mothers have reacted favorably to this lack of absolute routine in hospital care, particularly the multiparous mothers, who have generally remembered unpleasantly the hospital interruption of sleep and rest during previous confinements.

Each group of nurses rotating through rooming-in have volunteered statements of appreciation for the educational merits of the service and the opportunity to do "real nursing." The sincerity of this appreciation has been documented several times by requests from young married nurses who have had experience in the unit to be registered as candidates for admission as soon as they have become pregnant.

Both the experienced and the unexperienced mothers greatly enjoyed the four-bed arrangement as it gave them opportunity to see each other during care and also to hear the comment of the doctors and nurses, then later discuss these comments with each other. It was considered an enjoyable and an educational opportunity.

The authors are not holding a brief for rooming-in as a panacea. On the contrary they believed there were many patients for whom it is not applicable, nor can it serve to prevent difficulties in children of very unhappy parents or those disturbed. They did believe that for the children of natural, happy and healthy parents, this method of care can offer protection against some of the severe emotional difficulties of children which the routinized child regimes of yesteryear have encouraged.—*D.R.D.*

* * *

Regional Enteritis

Regional Enteritis: Diagnosis and Treatment. Rossmiller, H. R., and Messenger, H. M. Med. Clin. of N.A. 419-427, March, 1948.

The findings described represent a study of 55 cases, 31 males and 24 females. Average age was 28.5 years.

Symptoms: duration varied from one month to 15 years. Symptoms suggestive of ulcerative colitis, namely diarrhea

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with cramplike abdominal pain. Weight loss is often striking. Fourteen patients have external fistulas in the right lower quadrant draining pus and/or fecal material. Five patients suggested partial intestinal obstruction.

Physical findings: 45 patients had tenderness in the R. L. Q., and in 24 a mass was palpated. Fourteen had abdominal sinus openings and nine had fistulae-in-ano. Most were malnourished.

Roentgen findings: careful examination will usually demonstrate flow of a thin stream of barium through involved section of small intestine. Barium enema may reveal involvement of terminal ileum by regurgitation through ileocecal valve.

Differential diagnosis: suspected in young adults complaining of persistent cramping abdominal pain, diarrhea, and weight loss. Diagnosis depends on positive roentgen findings. Diseases confused most commonly include (1) ulcerative colitis, (2) appendicitis, (3) intestinal tuberculosis, (4) tumors of small bowel, and (5) amebic granuloma.

Treatment: six patients were treated medically by rest, high caloric, high protein, low residue diet, vitamin supplements, correction of anemia, and various sulfonamides. Three progressed satisfactorily, two were not followed, and one died of sepsis 30 days after exploratory laparotomy at which no surgical treatment was given.

Twenty patients had sidetracking operations, chiefly ileostomy and ileocolostomy with transection of diseased bowel. Results were good in only two patients.

Thirty-five patients had resection of all obviously diseased bowel—usually with ileotransverse colostomy. Results were satisfactory in 23, poor in eight, and four were not followed.—*E.J.R.*

* * *

Sensitivity to Histoplasmin

Sensitivity of Skin to Histoplasmin in Differential Diagnosis of Pulmonary Disease. Groover, Marshall E., Jr., Cleve, Edward A., Bornstein, Siegbert, Rice, Alfred G., Galloway, A. F., Macaleso, C. P. Arch. Int. Med. 80:4, 496-513 (October) 1947.

A total of 1500 men with x-ray evidence of pulmonary pathema on discharge from the armed forces were studied. Most of them were asymptomatic. 3.5 per cent had negative cutaneous tuberculin reactions. The sputums repeatedly were negative in over 50 per cent of cases. Some patients were proved to have coccidiomycosis from sputum or compliment fixation and precipitin tests. All were received from and read by the same technician. Three intradermal tests on the left forearm using (1) PPD 0.1 cc (0.00002 mg. of tuberculin), (2) Coccidiodin (C. E. Smith) 1 to 1,000 in 0.1 cc fluid, (3) Histoplasmin (Army Institute of Pathology) 1 to 1,000 in 0.1 cc fluid. Induration or erythema less than 5 by 5 mm. was considered a negative reaction, and then second strength tests were done: (1) Tuberculin 0.005 mg. as P.P.D. 0.1 cc fluid, (2) Coccidiodin 1 to 10 dilution in 0.1 cc fluid, (3) Histoplasmin 1 to 10 dilution in 0.1 cc fluid. Cultures were in duplicate sets—one at room temperature, the other incubated at 37° C for six weeks. Each set consisted of (1) beef infusion broth tubes, (2) Sabouraud's agar slants, (3) corn meal agar slants, (4) blood agar slants. 1229 persons were tested. When a strongly positive (over 20 mm.) reaction occurred from Coccidiodin first strength, a slightly positive reaction occurred from histoplasmin second strength and vice versa. 528 patients were followed a sufficient length of time to complete the clinical observations. 90.6 per cent gave positive tuberculin tests, 58.6 per cent gave positive histoplasmin and 31.1 per cent gave positive coccidiodin. Wide variations prevented conclusions concerning blood counts, and temperatures.

Patients whose skin gave positive histoplasm reactions had a higher percentage of pulmonary calcifications than those exhibiting positive tuberculin reactions.

Efforts to isolate a fungus characteristic of H. capsulatum by microscopic examination and careful mycologic studies of bone marrow sputum and lymph nodes of patients with a strong sensitivity of the skin to histoplasmin were consistently nonproductive.

The authors concluded by saying the present methods used in the differential diagnosis of pulmonary tuberculosis are inadequate.—*P.W.M.*

* * *

Respiratory Infections in Children

Prophylaxis of Upper Respiratory Infections in Children Treated with Oral Penicillin. Lapin, J. H. Am. J. Dis. Child., 32:119-123 (February) 1948.

One hundred forty-eight children from eight months to 10 years of age were given 50,000 units of oral penicillin as buffered tablets one hour before breakfast and supper for 12 months, and a control group of 110 children received no medication. Both groups of children had previously experienced about the same number of colds.

The group given penicillin prophylaxis experienced a reduction in the average number of upper respiratory infections from 5.05 in the previous year of no penicillin prophylaxis to 2.3 in the year of penicillin prophylaxis (45.5 per cent) and the group experienced a reduction in the number of febrile days from 16.76 days in the previous year to 4.24 days in the year of penicillin prophylaxis (25 per cent).—*D.R.D.*

Postgraduate Course on Fractures

The Harvard Medical School has announced a postgraduate course on fractures and other traumatic conditions for September 20-29, 1948. The course is covered by the G.I. Bill of Rights. Complete information may be secured from the graduate school, 25 Shattuck Street, Boston, Massachusetts.

Science Writing Awards

George A. Keaney, New York World-Telegram feature writer, and Steven M. Spencer, associate editor of the Saturday Evening Post, were recently named winners of the two $1,000 prizes in the annual competition held by the American Association for the Advancement of Science for the George Westinghouse awards.

Mr. Keaney received his award for a series of five articles reporting recent investigations on blood, transfusions, incompatibility, and validity of paternity blood tests. Mr. Spencer's award resulted from an article, "New Hope for the Anemic," describing the discovery and success of folic acid.

Health is something that all men desire and there is no limited supply for which nations must compete. Public health work carries no threat to anybody, anywhere. Cancer and scarlet fever have no political ideology.—*Raymond B. Fosdick, Am. J. Public Health, Jan., 1948.*

The death rate in Kansas in 1945 was 10.4 per 1,000 estimated population, and in 1946 it was 9.7, according to figures recently released by the Office of Vital Statistics, U. S. Public Health Service. This compares favorably with figures for the nation as a whole, 10.6 in 1945 and 10.0 in 1946.

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THE CHOICE OF ANESTHETIC AGENTS AND PROCEDURES*

Edward B. Tuohy, M.D.,** Theodore A. Guenther, M.D., and Franklin J. Grabill, M.D.
Washington, D.C.

Thought, judgment, and experience all serve to formulate personal opinions. Fortunately, if we keep an open mind, the opinions we hold are less likely to be limited or narrow, and should be capable of being altered when irrefutable evidence is presented.

There are certain ideas and convictions which have application in anesthesiology that to me have seemed to have a certain amount of conservatism and practical value. In many instances it is extremely difficult to evaluate the merit or rationale for the use of certain agents, so that one must rely primarily on the data of the experimental laboratory to arrive at an opinion and conclusions. However, in the final analysis, it is probably personal experience and the experience of others which determine the stand one will take in the use of certain drugs and how they will be employed. The field of anesthesiology today embraces many subjects, and tends to become more complicated rather than less so. Perhaps this is not true for the physician who devotes full time to the specialty of anesthesiology, but in all likelihood it is true in the case of the general surgeon and internist who are confronted with these many new agents and methods of anesthesia.

It is important that one individualize each patient before deciding on the method and agent of anesthesia. Consultation with the surgeon and internist is essential teamwork. Evaluate the surgical procedure, the surgical risk involved, and choose the agent and method which will afford the greatest safety to the patient. There is no utopian anesthetic momentarily, but there are many agents and methods, fortunately, which are available for anesthesiologists. It is the rare or exceptional anesthesiologist who is equally adept with all agents and methods, but it is the aim and goal of qualified anesthesiologists to master all available agents and methods.

Pertinent data and facts are important in the choice of anesthesia. Let us consider operative procedures and integrate the agents and methods of anesthesia in the several categories of surgery. Often the choice of anesthesia is debatable or equivocal, and management of anesthesia is the important consideration. Rightly, we may say that the past century of surgery is the era of painless surgery and now we are entering an era of safer surgery. In principle we should remember the fact that local or regional anesthesia causes less systemic reaction in patients than does general anesthesia, and we should cultivate these regional anesthetic procedures whenever possible.

Intracranial operations can be accomplished with local or general anesthesia. When the patient is unconscious little, if any, anesthetic agent is required. Maintenance of an airway, removal of mucus and supportive cardio-vascular therapy are most vital. Intubation of the trachea for intracranial operations in the unconscious patient is a life saving procedure in many instances. It provides a free, unobstructed airway, and a means of artificial pulmonary ventilation should respiration cease. Be prepared to administer blood and fluids in these cases, and introduce a large bore needle (15-gauge) in a suitable vein. A styletted needle is advantageous because fluids will not be required to keep the needle patent, but only to support blood pressure when needed. Concentrated serum albumin is valuable to reduce intracranial pressure and a small volume of the material (20 c.c.) will have the osmotic pulling force of 1000 c.c. of blood. Use morphine sparingly in surgery. Many patients should not have any opiate or barbiturate or other respiratory depressant prior to intracranial surgery because of the existing physical status of the respiratory center. Fortunately, for the anesthesiologist, relaxation is not a "command performance" in intracranial surgery—anesthesia or analgesia will suffice in most instances.

*Presented at 89th annual session, Kansas Medical Society, Wichita, Kansas, May 10-13, 1948.

**Professor of Anesthesiology, Georgetown University Medical Center.

Pentothal sodium intravenously is not, in my opinion, the routine agent of choice in intracranial surgery. Whereas, it is fire and explosion proof, the hazards that can be encountered with the agent are as formidable—namely respiratory depression and inadequate oxygenation. An intra-tracheal tube should be used for these operations if pentothal is the agent of choice.

Intentional arterial bleeding, producing a so-called controlled hypotension, has been advocated by Hale and Gardner[1]. The withdrawn blood is heparinized and subsequently injected arterially when required. Their reports indicate that arterial transfusions are more effective than intravenous transfusions in treating hypotension and incipient surgical shock. They have applied this technic in neurosurgery particularly.

Operations on the face and neck and intra-orally, are mechanical problems for the anesthesiologist. The crux of the problem is the maintenance of an adequate airway. This requirement must be met and maintained. There is little to be gained discussing sodium pentothal for these operations, if the airway is unalterably provided. It will be a satisfactory anesthetic agent. However, if the airway cannot be guaranteed, disaster will be lurking on many occasions. This overall concept or regard states emphatically my attitude toward this agent in operations about the head and neck. Local, regional and intratracheal anesthesia are more practical and more safe for the most part.

Intrathoracic surgery presents many problems intimately connected with respiration, and only a few cases are adapted to any other anesthesia except the general inhalation intratracheal method. Ether and cyclopropane are the agents chiefly employed. It remains, at the moment, for time and experience to decide the ultimate attitudes toward curare, nitrous oxide, and oxygen in chest surgery. I am not too sure that we have answered the question is "respiration" necessary. A thoracoplasty can be adequately handled with pentothal sodium and/or local anesthesia with definite advantages.

Postoperative suction bronchoscopy is vital in chest surgery and it should be performed after most intrathoracic operations before the patient is returned to bed. Oxygen and mixtures of oxygen and helium are valuable therapeutic agents postoperatively. Likewise, positive pressure oxygen has a definite place in certain types of hypoxia.

AGENTS AND METHODS IN ABDOMINAL SURGERY

It is quite natural that some form of general anesthesia is requested by most patients for abdominal surgery, and unquestionably the greatest percentage of abdominal laparotomies are performed with the patient under general anesthesia, for which purpose ether is probably the main anesthetic agent. Nitrous oxide or, perhaps, ethylene is used as the induction agent. The almost universal safety of diethyl ether for children and adult persons makes it very popular. It is true that more nausea and vomiting attend its use than occur with cyclopropane or the combination of solution of tribromoethanol ("avertin") (rectally) with cyclopropane. The contraindications to ether are actually very few, and pulmonary tuberculosis (active) is probably the most definite. Cyclopropane, because it is pleasant to inhale, nonirritating and rapid in its action, is rather popular, particularly now that curare can be used as an aid in obtaining surgical relaxation without resorting to the controlled method of respiration. Certain cardiac irregularities do develop in some persons under cyclopropane anesthesia. These usually occur in the light planes of surgical anesthesia and are abolished when the depth of surgical anesthesia is increased. It is the concensus at the present time that if certain types of arrhythmia do occur the introduction of a little ether into the anesthetic mixture will usually abolish these cardiac irregularities. It is my opinion that prolonged administration of cyclopropane for abdominal surgery or for thoracic surgery should be watched carefully because of the fact that the systolic blood pressure, which has a tendency to be reasonably well maintained during surgical anesthesia with this agent, tends to fall rather abruptly after administration of the anesthetic agent is terminated. Not infrequently the patients enter into a state of hypotension which may reach the level of surgical shock within a few minutes. This phenomenon does not occur, as a rule, during the shorter administrations of cyclopropane, particularly when the depth of surgical anesthesia is kept in either plane one or two. I think that it is well to emphasize this point, that aberrations in blood pressure may follow the prolonged administration of cyclopropane and that precautions should be taken to prevent this drop in pressure. Intravenous administration of fluids should be started in sufficient time to prevent any pronounced deviation in blood pressure. Dextrose solutions, plasma or whole blood transfusions may be necessary. The advantage of using curare, or d-tubocurarine, with cyclopropane anesthesia for abdominal surgery, lies in the fact that this agent (curare) can be utilized to produce the muscular relaxation necessary to accomplish the surgical operation so that the depth of general anesthesia incident to the administration of cyclopropane can be kept at the level of plane two or slightly below.

The use of an intratracheal tube during the administration of any inhalation anesthetic agent has been established as an excellent means of maintain-

ing an adequate airway for the patient, serves to minimize the amount of anesthetic agent required and provides a means of artificial pulmonary ventilation should this procedure be required. Either the nasal or oral route of intubation may be used. I believe that an intratracheal tube should be used in the majority of cases in which cyclopropane and curare are used in combination, inasmuch as momentary periods of apnea may occur in certain persons. The use of an intratracheal tube is a definite safety precaution.

The amount of curare, or d-tubocurarine, which may be required in individual cases varies. Curare should be administered intravenously in fractional doses just prior to the opening of the peritoneum in cases of abdominal laparotomy. At the time of the administration of curare the flow of anesthetic gases or vapors should be momentarily turned off and basal oxygen administration maintained. The pharmacologic effect of curare on respiratory volume can be noted by watching the breathing bag on the gas machine. When the respiratory excursions become definitely shallow one usually will note concomitantly that the abdominal muscles are also relaxed. The effect of d-tubocurarine usually last for 25 to 30 minutes. Not infrequently, when the operation has been completed and the peritoneum is to be closed, additional intravenous administration of this agent will be required. The same technic as that previously described should be used in this juncture.

Again a word of caution is indicated concerning the use of curare to secure relaxation in closure of the abdomen. In certain persons who have had curare for closure, a transient depression of respiration occurs after the closure of the abdomen. This is probably due to the fact that sensory and motor stimuli are no longer present and respiration is not reflexly activated by these stimuli. It is important, therefore, to watch the patient closely when he is returned to his room to make sure that an adequate airway is maintained and that adequate pulmonary ventilation continues. This sequence of events may be noted with ether and curare, nitrous oxide and curare, pentothal sodium and curare, or with practically any combination of these agents. In the event of physiologic overdose from curare, the administration of neostigmine (pharmacologic antidote) combined with the administration of oxygen by means of artificial pulmonary ventilation is indicated.

CONTINUOUS SPINAL ANESTHESIA

The advantages of the method of continuous spinal anesthesia in which a ureteral catheter or the Lemmon malleable needle is used are that (1) a relatively nontoxic agent may be administered intrathecally in divided doses as they are required, (2) this method prevents the tendency to administer the large initial doses which may be given when a single subarachnoid spinal injection is used, and (3) it permits the surgeon to have practically unlimited operating time, thereby preventing unnecessary haste. The continuous method of spinal anesthesia is recommended in those persons who are suitable candidates for spinal anesthesia for the repair of ventral or inguinal hernia, for total cystectomy with transplantation of the ureters and for extensive operations on the gastrointestinal and biliary tracts.

The main disadvantage of any type of spinal anesthesia for operations in the upper part of the abdomen is the relatively high incidence of nausea or vomiting. This does not hold true for operations in the lower part of the abdomen, as a rule. In my experience I have found that the judicious intravenous use of pentothal sodium will control this problem of nausea or vomiting. Pentothal sodium should not be administered, however, until the full extent of the action of the spinal anesthetic agent has been determined. By this I mean the dermatome level to which the anesthetic agent has risen in the subarachnoid space. Obviously, as respirations become shallow as a result of paralysis of the intercostal muscles incident to spinal anesthesia, one should be very cautious in administering pentothal sodium. The ureteral catheter technic has been mechanically more satisfactory, in my experience, than that of the malleable needle, and it offers the additional advantages of allowing greater mobility of the patient, particularly for orthopedic operations, and of eliminating the requirement for a bulky mattress. Whereas various combinations of anesthetic agents, such as tetracaine (pontocaine) hydrochloride and dextrose or other solutions of anesthetic agents lighter or heavier than the spinal fluid, are used for abdominal operations, it is my impression that for operations which are reasonably extensive, the continuous method of spinal anesthesia is sounder physiologically.

I think a mistake is made not infrequently in the use of pentothal sodium as a supplement to the inadequate spinal anesthesia which may be obtained when the single dose method is used. The situation is usually one in which the spinal anesthetic agent does not give motor and sensory effects at levels sufficiently high anatomically to encompass the limits of the incision. When this situation arises one usually ends up by using a fairly large amount of pentothal sodium and, more likely than not, by switching to some combination of inhalation anesthetic agents in addition to the agents already administered. This is usually an unsatisfactory situation for the surgeon, as is well known, not to men-

tion the fact that it is embarrassing for the anesthesiologist, because the respiratory depression which is usually present after inadequate spinal anesthesia plus use of pentothal sodium is sufficiently marked that the introduction of an inhalation anesthetic agent is a slow and tedious process.

Regional block infiltration of the skin, subcutaneous tissue and fascia overlying the abdominal muscles is a method of anesthesia to be considered when surgical risk is great; the so-called abdominal wall block may be justifiably combined with light inhalation anesthesia or with the use of pentothal sodium or any of several inhalation agents, with or without administration of curare. Certain surgeons have found that the use of regional block of the abdominal wall, plus infiltration of the parietal peritoneum and block of the anterior splanchnic nerves, has worked well for operations on the stomach and biliary tract. In certain persons who are not of the robust, athletic type, this method of anesthesia is satisfactory. I believe that the success of this method depends chiefly on the cooperation of the patient and the diligence, skill and patience of the surgeon. Regional block of the abdominal wall, plus block of the anterior splanchnic nerves, is not satisfactory for operations on the lower part of the abdomen.

In bilateral intercostal nerve block by injection of the intercostal nerves in the anterior axillary line, the block usually includes the eleventh, tenth, ninth, eighth, seventh and sixth thoracic nerves. Five c.c. of one per cent solution of metycaine hydrochloride with epinephrine is injected at each site. In patients who are not of the robust type this regional anesthetic procedure gives reasonably satisfactory anesthesia for operation on the upper part of the abdomen. It may be necessary to combine it with intravenous pentothal sodium anesthesia or with light gas-oxygen inhalation anesthesia.

PENTOTHAL SODIUM

I believe that at present pentothal sodium is being employed for too many surgical procedures without due consideration of the limitations of the drug, and that as a result, unnecessary complications (such as apnea, stridor, and hypoxia) are arising in certain cases of surgical intervention. Complete muscular relaxation is not guaranteed in the case of every surgical subject anesthetized with pentothal sodium, and herein lies the difficulty, particularly in abdominal surgery. Various combinations of local and regional anesthetic agents with pentothal sodium have been tried, including the current use of curare in an effort to eliminate the use of inhalation agents such as ether and cyclopropane and to obviate the need for judicious use of spinal anesthesia in abdominal surgery. As a general practice, it ought to be remembered that pentothal sodium should be used for relatively short surgical procedures, in which muscular relaxation is not essential. There are exceptions to any rule, of course, but in the main it will be best to follow this practice. Likewise, pentothal sodium should not be used to anesthetize the very young individual, less than ten years of age, because of the tendency for marked respiratory depression to appear. Again, operations around the head and neck, where the airway can not be maintained adequately or guaranteed, constitute an obstacle to the use of pentothal sodium.

THE GENERAL PROBLEM OF ANESTHESIA IN OBSTETRICS

The problem of providing anesthesia to women in childbirth and of performing the safe delivery of newborn infants is a major responsibility, especially for the general practitioner. In hospitals where obstetric facilities are readily available the teamwork between the anesthesiologist and the obstetrician simplifies somewhat the general problem of handling the parturient mother.

There are certain factors which should be considered in the choice of any general or local anesthetic, analgesic or amnesic agent. They are as follows:

1. What is the physiopharmacologic action of the agent on both the maternal and fetal structures?

2. What fetal or maternal diseases or abnormalities exist which may alter the selection of certain agents?

3. What agent or agents and method are best suited to the emotional and physical status of the mother?

4. Is the method used one which will afford the greatest safety to the mother and infant?

Certain criteria should be present in the choice of any agent or method. These agents should possess adequate properties to obtund the pains of labor without any untoward systemic reaction. Secondly, the agent should be reasonably prompt in its action and should not possess cumulative effects. Thirdly, effective means of counteracting an overdose or idiosyncrasy to the agent should be available.

It might be pointed out at this time that the wisdom or advisability of the attempts to relieve the pains of labor totally have been seriously questioned by some authorities on this subject. DeLee and Greenhill have emphasized repeatedly the price that is paid to make childbirth painless. Heaton, in writing on obstetric anesthesia and analgesia, commented: "Perhaps, as the psychiatrists have suggested, the inordinate demand for painless childbirth is symptomatic of the anxiety and insecurity existing among certain groups in our culture today. It is questionable from a psychologic standpoint

whether the passive role assigned to women in painless childbirth is a desirable one."

Opinions of various investigators with respect to the effects of certain agents are occasionally controversial, so that the comments made here are a composite opinion and not one individual's conviction.

Many methods of analgesia and anesthesia have been proposed but some of these are limited in their practical application because they are too technical and complex. Continuous caudal anesthesia might be mentioned as an example of a highly technical procedure which is very valuable but has limited application. In the conduct of the average uncomplicated labor and delivery the obstetrician and the anesthesiologist, singly or together, focus their attention on amnesic, analgesic and anesthetic agents which will obtund pain and produce at least relative amnesia. In the first stage of labor analgesic and amnesic agents are usually sufficient. In the second and third stages of labor anesthetic agents are required, as a rule.

SUMMARY

The choice of anesthesia for surgery cannot be stated didactically. Of more importance than the anesthetic agent or procedure are the skill and judgment of the anesthesiologist. Of practically equal importance is the teamwork between the surgeon and anesthesiologist, which will serve to give the patient the safest anesthetic agent possible and in a sufficiently satisfactory manner so that the best surgical result can be accomplished.

General anesthesia has its own place as a choice of procedure in abdominal surgery. Likewise, regional anesthesia, including spinal, has its merits. Various agents, such as pentothal sodium, curare and cyclopropane, can be employed in combination with other anesthetic agents and procedures. Each case should be evaluated and when possible the anesthesia "tailor made" for the operation to be done, the fact being kept in mind that the greatest safety to the patient is of first importance.

Finally, when we are confronted with a difficult choice of anesthesia, let the choice be such that it can be said that we can defend the agent and method used, in case an untoward effect or result occurs. Innovations and novelties become "poor notions" if they are precocious.

REFERENCES

1. Gardner, W. J., and Hale, D. E.: Personal communication to the author. *Abstract of paper to be published elsewhere.

THE INDICATIONS AND CONTRAINDICATIONS FOR SPLENECTOMY IN HEMATOLOGIC DISEASES

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Within the last few years much data has been accumulated about the human spleen in both health and disease. The spleen is an organ that is not essential to the maintenance of life and health. This has been adequately shown by its surgical removal in many experimental animals and by the accumulated experience of emergency splenectomy for traumatic rupture. Most of the recent progress in the understanding of the normal and pathologic physiology of this organ has been made by the study of human disease.

To more clearly understand the disease syndromes that may result from splenic disfunction, it is necessary that one understands the normal physiology and anatomy of the spleen. This complex organ may be divided into three functional portions; the vascular system, the lymphoid system, and the reticulo-endothelial system.

The vascular system of the spleen comprises that portion which serves as a reservoir for blood cells and plasma. The lymphoid structure of the spleen makes up a large portion of the total organ. The exact function of the lymphocyte is not known at this time. The third portion of the spleen, namely, the reticulo-endothelial system, is composed of specific endothelial cells and reticulum cells. These cells, physiologically, are of the phagocytic type and may be either of the fixed variety or of the free wandering type and known as clasmatocytes.

In those hematologic diseases in which splenectomy is curative or beneficial, there is a hyperplasia of highly phagocytic reticulo-endothelial cells with or without splenic enlargement. The normal physiologic function of reticulo-endothelial cells consists in part of phagocytosis of old or damaged erythrocytes, granulocytes, and blood platelets. In health there is a well balanced reciprocal relationship between splenic function and bone marrow hematopoiesis. When splenic disfunctions develop this relationship is disturbed, the phagocytic action is over-emphasized, and definite clinical syndromes become evident. When this pathologic physiology

occurs it is manifested clinically by thrombocytopenic purpura, hemolytic anemia, granulocytopenia, or panhematopenia (simulating aplastic anemia). These clinical syndromes are well known and are called primary splenic diseases; however, any of these deceased states may occur with secondary hypersplenism.

THROMBOCYTOPENIC PURPURA

As early as 1887 Denys[1] was able to divide the clinical purpuric states into two groups; the thrombocytopenic and the non-thrombocytopenic types. Since that time there has been a further subdivision of the thrombocytopenic group; the essential, splenic, or idiopathic type and the symptomatic type. This subdivision is of the utmost importance because of the difference in the management of the disease. The successful management of the essential or splenic type of thrombocytopenic purpura often requires surgery, a splenectomy resulting in a clinical cure. Management of the symptomatic type is strictly a medical measure. If these therapeutic principles are reversed, the outcome may be fatal.

Various theories have been formulated to explain the cause of the thrombocytopenia. One widely accepted theory is that the spleen prevents normal maturation of the megakaryocytes in the bone marrow, these cells being responsible for the manufacture of blood platelets[2]. Another widely accepted theory is that the spleen in itself phagocytizes a large number of platelets and it is this pathologic physiology that causes the thrombocytopenia[3].

Various types of medical therapeutic measures have been used in an attempt to treat or cure the essential or splenic type of thrombocytopenic purpura. The various types of treatment that have been used are illustrated in the case in Figure 1, no increase in platelets occurring until a splenectomy was done. Various investigators differ in their viewpoint as to the cause of the thrombocytopenia; however, they agree that it is a splenic disease and that the only type of treatment that will cause a remission in the essential or splenic type is splenectomy. This type of treatment should be instituted as soon as the diagnosis is adequately made.

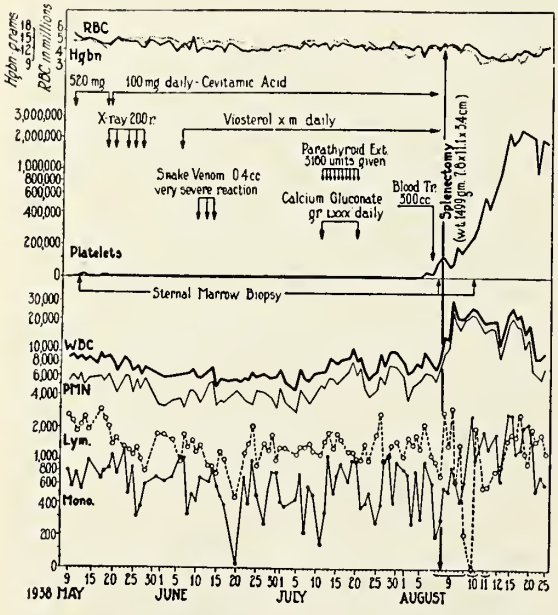


Figure 1. A white woman, aged 48, case of essential or splenic type of thrombocytopenic purpura. This chart illustrates a number of therapeutic agents which have been stated to be of value in this disease. The thrombocytopenic state was corrected only by splenectomy.

The essential diagnostic features of this disease according to Wiseman, Doan, and Wilson[3] are spontaneous purpura and/or free bleeding from the mucus membranes, the blood platelets must be substantially decreased in numbers to less than 100,000 per cu. mm. of blood, the clotting time and prothrombin time must be within normal limits, the anemia and the leukocyte count must not be out of proportion to the amount of bleeding, there must be no pathologic cells in either the blood or the bone marrow, there must be no recent history of the ingestion of drugs or the occurrence of those diseases known occasionally to produce thrombocytopenia, and there must be no appreciable enlargement of the spleen or lymph nodes. It is essential that a bone marrow study be done on these cases before splenectomy. The bone marrow must contain either a normal or increased number of megakaryocytes, never a decreased number of these cells.

HEMOLYTIC ANEMIA

There are many and various types of hemolytic anemias. For the purpose of this presentation only two types will be discussed, namely, the congenital or familial type and the acquired type.

When an individual with hemolytic anemia presents himself for examination, various clinical features are usually quite evident. The sclerae are slightly icteric. The lymph nodes may or may not be palpable. The spleen is large and firm. In these cases a family history is of the utmost importance. At times it is necessary to actually examine the other members of the family, and it may be necessary to obtain certain laboratory tests before it can be ascertained whether or not the hemolytic anemia is of the inherited type. The red cells are of the microcytic type. The reticulocytes are increased. There is an increased fragility of the red cells to hypotonic saline solution. The icterus index is increased. In the familial type of hemolytic anemia a splenectomy results in a clinical cure. Figure 2 illustrates such a case and shows how rapidly the icterus index and the reticulocytes return to normal after the spleen is removed.

Many cases of acquired hemolytic anemia are very difficult to differentiate from the congenital or familial type. The physical findings and the laboratory data are very apt to be similar; however, in the acquired type one may have no microcytosis and the fragility test may be entirely normal. As this may

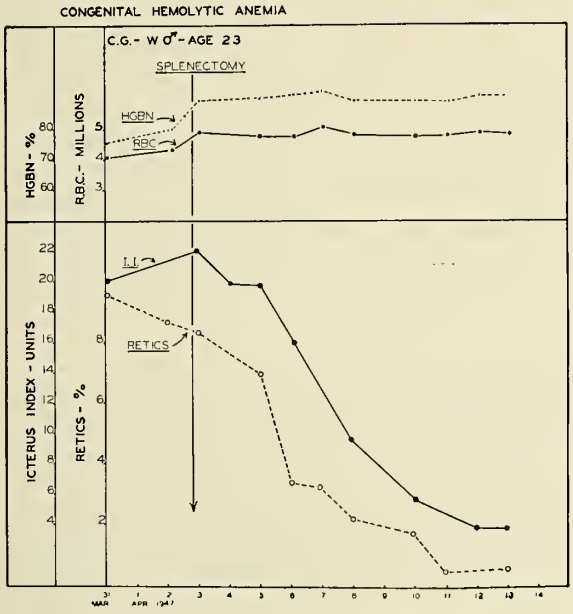


Figure 2. This chart illustrates a case of congenial hemolytic anemia. A cholecystectomy had been done three years prior to the splenectomy at the age of 20 years because of gallstones. The patient continued to be icteric. This was thought to be a case of acquired hemolytic anemia until adequate family studies had been made. This case illustrates the rapidity of the reductions of the icterus index and the reticulocytes after removal of the spleen.

also be true in a rare case of the familial type, it is certainly not a diagnostic sign. It has been truly stated by some investigators that the acquired types of hemolytic anemia that have a microcytosis and an increased fragility of red cells respond best to splenectomy. In order to predetermine the possible result of a splenectomy it can be said (a) it is indeed a rare case of familial hemolytic anemia in which a splenectomy does not result in a clinical cure, and (b) about 50 per cent respond satisfactorily to splenectomy in the acquired type of hemolytic anemia. However, unless a splenectomy is done in the acquired type, the mortality is almost 100 per cent[4]. Figure 3 illustrates an acquired type of hemolytic anemia.

Various types of treatment have been tried for hemolytic anemia. Blood transfusions are of little or of no value in most instances, the blood being destroyed just as rapidly as it is administered[5]. Dameshek and his associates[4] state that no more than four transfusions should ever be given to even the acquired type of hemolytic anemia. It is entirely possible that repeated transfusions may stimulate the entire reticulo-endothelial system to such a high degree of phagocytosis that when a splenectomy is done the results may not be satisfactory. It has been emphasized in recent years that a hemoclastic crisis in which there is such a marked hemolytic reaction that the level of the erythrocytes is almost incompatible with life is not a contraindication to splenectomy[6]. When a hemoclastic crisis occurs a splenectomy is an emergency measure.

PRIMARY SPLENIC NEUTROPENIA

Another normal physiologic function of the reticulo-endothelial cells of the spleen is to phagocytize and destroy old or worn out granulocytes. In 1942 Wiseman and Doan[7] reported five such cases. Since that time many additional cases have appeared in the literature. In this newly recognized syndrome there is a marked neutropenia and splenomegaly. It was suggested by Wiseman and Doan that this be termed the essential or primary splenic type of neutropenia, inasmuch as the evidence they presented demonstrated that the basic mechanism was

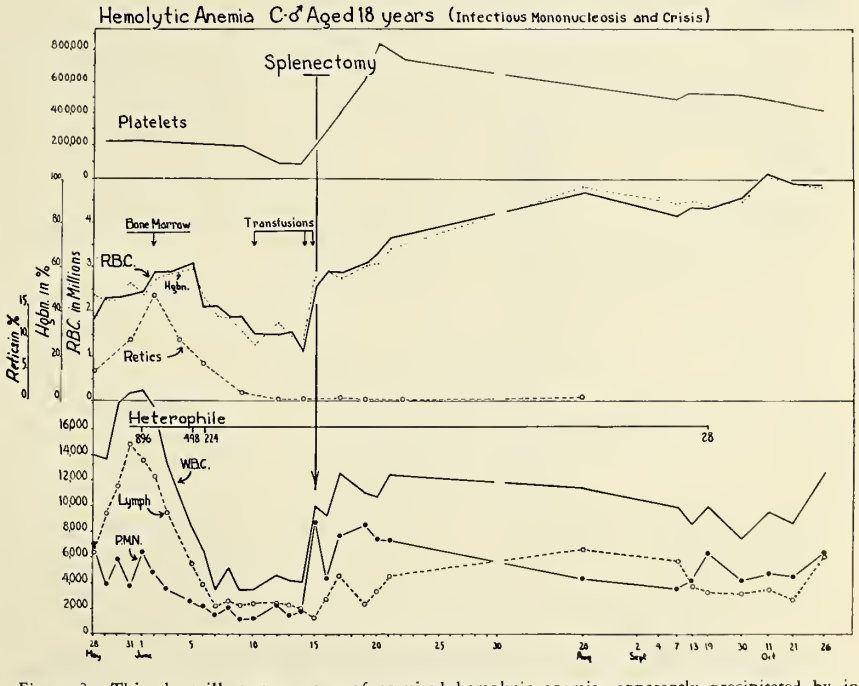


Figure 3. This chart illustrates a case of acquired hemolytic anemia, apparently precipitated by infectious mononucleosis. It will be noted that when an acute hemoclastic crisis occurred transfusions had no effect. Immediately after splenectomy there was a marked rise in the erythrocytes followed by a gradual return to normal of all the formed blood elements.

hypersplenism in which there was an accelerated destruction of the granular leucocytes of the circulating blood by the reticulo-endothelial cells of the spleen. These cases are apparently permanently cured by removal of all splenic tissue and the patients are restored to normal hematopoietic equilibrium. This syndrome superficially resembles Bant's syndrome, Felty's syndrome, sub-leukemic myeloid and monocytic leukemia, hypoplastic anemia, malignant neutropenia, and certain types of chronic infection in one or more particulars.

An accurate final diagnosis may be achieved only after a complete clinical study in addition to detailed observations of both the blood and the bone marrow. The bone marrow is hyperplastic for the myeloid cells and if a moderate hemolytic anemia is observed the erythroid elements are also hyperplastic.

PRIMARY CONGENITAL SPLENIC PAHHEMATOPENIA

In 1946 Doan and Wright[8] described a syndrome in which all the formed elements of the peripheral blood were decreased. These cases had a neutropenia, thrombocytopenia, and a marked anemia. Examination of the bone marrow in these cases revealed that all of these elements were present in normal numbers. A splenectomy resulted in a clinical cure. These cases may resemble aplastic anemia, the only differentiating criterion being an examination of the bone marrow.

SECONDARY HYPERSPLENISM

The primary splenic syndromes that have been presented may be simulated by any secondary involvement of the splenic tissue. The following diseased states may cause such a hematologic picture: posttraumatic splenosis, Hodgkin's disease, syphilis, moniliasis, tuberculosis, Boeck's sarcoid, chronic lymphatic leukemia, lymphosarcoma, cirrhosis with splenomegaly (Banti's and Felty's syndromes), polycythemia rubra vera, symptomatic polycythemia, Gaucher's disease, and cardiac decompensatory congestive splenomegaly[9]. In some instances the spleen may be so hyperactive as to be incompatible with the survival of the patient.

Figure 4 illustrates a case of Banti's syndrome and shows the results of splenectomy if done early. Doan reported two cases of Gaucher's disease in which the spleen was primarily involved[9]. The bone marrow also contained scattered Gaucher's cells. In both of these patients a tremendous splenomegaly developed, accompanied by an acute panhematopenia with a decrease in all of the formed elements of the peripheral blood. An emergency splenectomy was done in each instance. One patient at the time of publication has survived 14 years and the other two years with a correction of all symptoms and signs. The same type of response has been reported in other types of secondary hypersplenism.

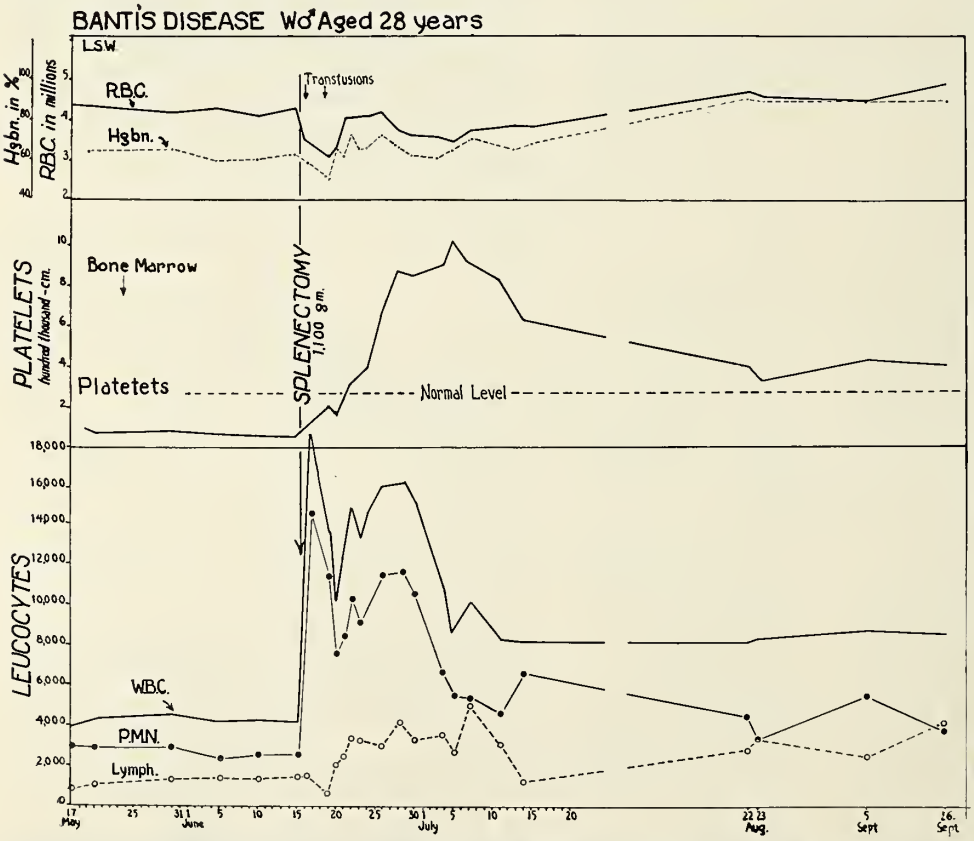


Figure 4. This chart illustrates a case of Banti's disease or syndrome. It will be noted that all of the formed elements of the blood were decreased and all return to normal after a splenectomy was done. This illustrates hypersplenism of the secondary type.

SUMMARY

The spleen is not an essential organ and is not necessary for the maintenance of life and health,

and is far more important pathologically than physiologically.

The normal physiologic function of the spleen consists in part of destroying old or damaged erythrocytes, granulocytes, and blood platelets. In health there is a well balanced reciprocal relationship between splenic function and bone marrow hematopoesis.

When splenic disfunctions develop the reciprocal relationship between the spleen and bone marrow is disturbed. The phagocytic action is stimulated and definite clinical syndromes become evident, such as thrombocytopenic purpura, hemolytic anemia, granulocytopenia, and panhematopenia (simulating aplastic anemia). In these diseases splenectomy is indicated, particularly in the primary type.

Accurate diagnosis is of the utmost importance as other hematological dyscrasias are similar to those in which splenectomy in curative or beneficial. Splenectomy is contraindicated in those diseases in which there is no evidence of hypersplenism, either of the primary or secondary types.

BIBLIOGRAPHY

1. Denys, J.: Cellule, *3:* 445, 1887.
2. Dameshek, W., and Miller, E. B.: Blood, The Journal of Hematology, *1:* 27, 1947.
3. Wiseman, B. K., Doan, C. A., and Wilson, S. J.: J. Am. Med. Assoc., *115:* 8, 1940.
4. Dameshek, W., Greenwalt, T. J., Tat, R. J., nd Dreyfus, C.: Hemolytic Syndromes, The Bailey Press, Boston, 1943.
5. Sharpe, J. C., and Davis, H. H.: J. Am. Med. Assoc., *110:* 2053, 1938.
6. Doan, C. A., Curtis, G. C., and Wiseman, B. K.: J. Am. Med. Assoc., *105:* 1567, 1935.
7. Wiseman, B. K., and Doan, C. A.: Ann. Int. Med., *16:* 1097, 1942.
8. Doan, C. A., and Wright, C.: Blood, J. Hematology, *1:* 10, 1946.
9. Doan, C. A.: Proc. Institute Med. of Chicago, *16:* No. 6, June 15, 1946.

THE RH NEGATIVE MOTHER IN PRIVATE OBSTETRICAL PRACTICE

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In reviewing the literature one finds that a great amount of material has been presented in the past five years dealing with the various scientific and technical phases of the Rh negative factor in obstetrical patients. This material is easily available as the need for study arises[1, 2, 3, 9]. The purpose of this discussion is to review a group of obstetrical patients as they present themselves in the office of a private practitioner, outlining the routine management and studying the end results, in order to arrive at some facts and conclusions which may be presented to an Rh negative patient with regard to the prognosis of her pregnancy as well as her child.

MATERIAL

The material for this study consisted of 623 cases as they presented themselves at the office for prenatal care.

PROCEDURE

1. To determine the Rh factor on all obstetric patients.

2. In the case of the Rh negative patient, the Rh factor was also determined on her husband.

3. If the husband was Rh positive, tests to determine the presence or absence of anti Rh agglutinins in the blood of the mother were run at frequent intervals during the last eight weeks of gestation, [4, 5, 6] in the hope that if a rising anti Rh agglutinin titer was found an early induction of labor might be considered in order to decrease the amount of liver damage incurred by the foetus.

4. Following delivery of Rh negative women with Rh positive husbands the Rh of the infant was determined.

5. If the infant was Rh positive, tests for anti Rh agglutinins were repeated on the mother. In this manner an attempt was made to determine the importance of the Rh factor as the mechanism in the production of pregnancy accidents; i.e. abortion, abruptio placenta, premature labor, stillbirth and erythroblastosis fetalis. There was only one case of erythroblastosis fetalis in this series and it was stillborn.

RESULTS

The following tables summarize this work:

TABLE 1

	No.	Per cent
OBSTETRICAL CASES	623	
Rh Positives	541	86.9
Rh Negatives	82	13.1

TABLE 2

	No.	Per cent
Rh Negative Cases	82	
With Rh Positive Husbands	68	83
With Rh Negative Husbands[1]	14	17
Rh Negative With Positive Husbands Undelivered or Moved[2]	11	

(1 and 2 Eliminated in Remaining Tables.)

TABLE 3

	No.	Per cent
Rh Negative Patients With Positive Husbands Delivered	57	
Rh Positive Offspring	40	70.1
Rh Negative Offspring	12	21.0
Rh Not Determined	5	8.9

TABLE 4

	No.	Per cent
Pregnancy Accidents in Rh Positive Patients.		
Patients Delivered	494	
Total Number of Pregnancies (including previous pregnancies)	926	
Patients Who Had Pregnancy Accidents	100	20.2
Pregnancy Accidents (including previous pregnancies)	140	15.1

TABLE 5

	No.	Per cent
Pregnancy Accidents in Rh Negative Patients.		
Patients Delivered	57	
Total number of Pregnancies (including previous pregnancies)	129	
Patients Who Had Pregnancy Accidents	21	36
Pregnancy Accidents (including previous pregnancies)	28	21.6

TABLE 6

	Per cent
Percentage Comparison of Pregnancy Accidents in Rh Negative and Rh Positive Patients.	
Rh Positive Patients Who Had Accidents	20.2
Rh Negative Patients Who Had Accidents	36.8
Pregnancies in Rh Positives Terminating in Accidents	15.1
Pregnancies in Rh Negatives Terminating in Accidents	21.6

DISCUSSION

1. A study of 623 consecutive private obstetrical patients was made in an effort to rationalize the problem of the Rh negative patient married to an Rh positive husband as it is seen in private obstetrical practice.

2. An analysis of this group of cases would lead us to assume that the Rh negative patient married to an Rh positive husband should minimize the risk to the infant from the standpoint of erythroblastosis fetalis. Icterus and hydrops as shown in this series developed only one in 129 Rh negative pregnancies or .77 per cent.

3. The same Rh negative patient with an Rh positive husband has a very definite chance to have pregnancy accidents, i.e. spontaneous abortions, premature separations and premature labor, as there were 28 accidents in 129 pregnancies or a per cent of 21.6 or 6.5 per cent greater than that found in Rh positive patients.

4. This group of patients represents a type of complication for which at the present date no uniformly successful therapy is available, and it is of course useless to promise any definite results with hormone, vitamin or other agents so frequently advised. Methionine for the prevention and treatment of liver damage in erythroblastosis fetalis is undergoing considerable investigation at the present time[8].

5. Some consideration should be given to the idea of early induction of labor if anti Rh agglutinins or blocking antibodies are detected late in pregnancy.

CONCLUSIONS

The conclusions to be drawn from this study are that as far as erythroblastosis fetalis is concerned, the absence of the Rh factor in the obstetrical patient with an Rh positive husband is emphasized out of all proportion to the actual occurrence of erythroblastosis fetalis and that it is of more significance in accidents of pregnancy.

BIBLIOGRAPHY

1. Some Clinical Aspects of the Rh Factor in Obstetrics. A. J. Ob. & Gyn., Vol. 52, Dec. 1946, No. 6. p. 917.
2. Review of Cases of Rh Iso-Immunization During the Past Five Years in the Royal Victoria Montreal Maternal Hospital. A. J. Ob. & Gyn. Vol. 52, Dec. 46, No. 6. p. 926.
3. The Clinical Significance of Rh Antibodies in the Sera of Rh Negative Mothers. A. J. Ob. & Gyn., Vol. 53, Apr. 1947, No. 4. p. 569.
4. The Antepartum Prediction of Hemolytic Disease of the Newborn. A. J. Ob. & Gyn., Vol. 52, Nov. 1946, No. 5. p. 794.
5. The Detection of Rh Sensitization; Evaluation of Tests for Rh Antibodies. Lou's K. Diamond; J. of Lab. & Clin. Med., Vol. 30, Aug. 1945. p. 668.
6. Conglutination Test for Rh Sensitization. A. S. Wiener; J. of Lab. & Clinical Med., Vol. 30, Aug. 1945. p. 662.
7. Does Rh Isoimmunization Cause Early Abortion? A. J. Ob. & Gyn. Vol. 54, Aug. 1947, No. 2. p. 235.
8. A Graphic Method of Prognosis for the Infant in the Antenatal Care of Rh-isoimmunin:zed Pregnant Women. T. Primrose, G. J. E. van Dorsser and N. W. Philpott. A. J. Obs. & Gyn., Vol. 54, Oct. 1947. p. 662.
9. Rh—Its Relation to Congenital Hemolytic Disease and to Intragroup Transfusion Reactions. Edith Potter. The Year Book Publishers.

Isuprel New Antiasthmatic Preparation

Isuprel, a new antiasthmatic preparation of Winthrop-Stearns, Inc., is now available in solution and in tablets, according to a recent announcement made by the manufacturer. It is said to be unique among antiasthmatics for sublingual use since its effect is produced by placing a small tablet under the tongue and allowing it to dissolve. It does not elevate blood pressure and does not produce drowsiness.

Service Benefits in Nebraska

Initiating its Blue Shield plan two years ago as an indemnity program, the physicians in Nebraska have approved recently the adding of service benefit guarantees for the subscriber members of Nebraska Medical Service.

A sufficient majority of Nebraska doctors have signed participating agreements, guaranteeing that they will accept the Blue Shield fee schedule as full payment for services rendered to subscribers with annual incomes below specified ceilings.

THE USE OF TESTOSTERONE PROPIONATE IN NITROGEN RETENTION*

F. W. Matassarin, M.D.

Wichita, Kansas

Our interest in the use of testosterone propionate in nitrogen retention was first stimulated because of the following findings. Testosterone was being used by us in the treatment of prostatism. It was noticed in these cases that when those with any elevation of the N.P.N. were under treatment with testosterone, besides symptomatic improvement, their N.P.N. became normal. We then began using this hormone on patients with large prostates, preoperatively. In these patients it was also noticed that N.P.N. levels returned to normal more quickly than with catheter drainage alone. This finding was too consistent to be coincidental.

The favorable results obtained from the use of this hormone in lowering elevated N.P.N. in prostatic cases made us curious as to what the effect of testosterone would be on the elevated N.P.N. in both the male and female, in other conditions. We therefore proceeded to try this treatment in all cases of nitrogen retention, with excellent results.

A few of the cases in which we have used Oreton** are abstracted below, showing the apparent beneficial effects of testosterone in lowering the elevated N.P.N. in a variety of cases.

CASE I. July 14, 1946, a while male, aged 75, was admitted to the hospital with a history of hypertension and coronary attacks ten years before and a present complaint of inability to pass urine, with a past history on this complaint beginning four years previously. Three years before he had a complete urinary retention and had worn a retention catheter since.

Examination: He was a well developed, poorly nourished white male. Physical examination was negative, except for a blood pressure of 210/88, with enlargement of the heart to the left. Prostate was enlarged four times. He had been carrying an N.P.N. ranging between 70 and 90 since 1943. His urine was negative except for a two plus albumin and his blood count was within normal limits.

On July 17 he was started on Oreton and given 10 mgms. intramuscularly, followed by 25 mgms. on the 19th, 23rd and 27th. His N.P.N. was found to be 57 on the 29th, and on the 31st a Belt perineal prostatectomy was performed. He had an uneventful recovery and was dismissed from the hospital August 19 with no nitrogen rentention.

CASE II. July 1, 1947, white female, aged 24, was admitted to the hospital complaining of pain in the epigastrium. Her last menstrual period was on December 14, 1946. For the past two weeks she had had swelling of the feet and ankles. Two days prior to admission, she began having pain in the epigastrium. She had had a hypertension for the past five years.

Physical Examination: Negative except for a blood pressure of 210/140 and a pulse of 100. The abdomen was the size of a six months pregnancy and there was marked edema of the feet, ankles and legs. Urinalysis on admission showed a four plus albumin with a few red cells and granular casts. The urine became more scanty, changing to a red brown color containing four plus albumin, red and white cells, hyaline and granular casts. Her white blood count was increased to 18,700 and the red blood count was within normal limits. The first N.P.N. run was on the 9th and was reported as 50.

From the date of her admission to July 9, her treatment was symptomatic with intravenous fluids and barbiturates. Her daily urinary output was considerably less than her intake. On July 9 she was started on Oreton, being given 25 mgms. intramuscularly daily through the 16th. Her output began improving on the second day of treatment and on the fourth day was greater than her intake. On the fifth day her urinary output was over twice the fluid intake. Her edema and blood pressure gradually subsided and she was dismissed from the hospital July 20 with an N.P.N. of 36. She had no edema, good urinary output and a blood pressure of 145/95. She was delivered of a stillborn infant on July 21, 1947.

CASE III. On April 1, 1947, a white male, aged 21, was admitted to the hospital because of convulsions and unconsciousness. The patient was a twin and a Cretin. He had been receiving thyroid treatment since infancy. He had had urinary dribbling all his life. For the past year he had had attacks of vomiting which had become progressively worse. For the past four months had had pain in both upper quadrants and tarry stools. On the evening of March 30 he had a generalized convulsion, lasting eight minutes, following which he was unconscious for eight hours.

Physical examination showed a poorly developed well nourished white male, who responded very slowly and had a marked speech defect. His hair was dry and coarse and the skin was dry and scaly. There was a hemorrhage into both conjunctiva with

*From Urologic Service, St. Francis Hospital, Wichita, Kansas.

**Acknowledgment: The brand of testosterone propionate used was Oreton, Schering Corporation, and was kindly supplied by them.

an ecchymotic area around the right eye. The heart and lungs were normal. There was a large reducible hernia in an old McBurney incision. His urine showed one plus albumin with numerous white blood cells. His red blood count was 2,390,000 and his white blood count was 7,700. His urea nitrogen was 186.

He was treated with penicillin, blood transfusions, thyroid extract and Sodium Delvinal until April 9, during which time his urea nitrogen ranged between 184 and 190 and his N.P.N. was 250. Treatment with Oreton was begun on April 10, receiving 25 mgms. intramuscularly on the following dates: April 10, 12, 14, 18, 21, 23, 25, and 30, May 3, 7, 16, 20, 26, and 31, June 3, 7, 14, 27, and 29, July 3, 7, 10, 21, and 26, August 2, 9, 12, 15, 18, and 25. His urea nitrogen steadily decreased on this treatment and the patient became clinically so markedly improved that he was dismissed from the hospital on April 14. His urea nitrogen determinations were 162 on April 11; 122 on April 30; 108 on May 17; 85 on June 17; 62 on July 7; and 38 on August 2.

On August 26 he developed a strangulated hernia for which his parents refused surgery and hospitalization, and he died on September 3.

CASE IV. On October 29, 1945, white male, aged 82, entered the hospital, complaining of pain in his abdomen and dribbling of urine. Onset of his urinary incontinence was two weeks before with an acute upper respiratory infection. He had had urinary difficulties for years and had been a semi-invalid since a cerebral hemorrhage at the age of 75.

Physical examination showed a well developed, poorly nourished white male. Blood pressure was 170/110 with enlargement of the heart, the abdomen distended with gas. Prostate was enlarged two plus. There was some pitting edema of both extremities. This patient was first seen by me on August 11, 1946, at which time his N.P.N. was 67 and his urine showed albumin, red blood cells and casts. At this time he was started on Oreton, intramuscularly, being given 25 mgms. on each of the first two days, then 10 mgms. four times a week until September 4, then twice weekly until September 25, then once a week until his dismissal from the hospital on October 26, 1946, at which time his N.P.N. had fallen to 33, his blood pressure was 140/70, and there was no edema of the extremities.

After his dismissal from the hospital he was maintained on 10 mgms. of Oreton, intramuscularly once a week, which kept his N.P.N. within normal limits. He expired in 1947, following a cerebral hemorrhage.

CASE V. On February 27, 1947, white male, aged 67, admitted to the hospital, vomiting blood. The onset of his illness was February 26, when he fainted. Two hours later he began vomiting blood which continued until his admittance to the hospital.

Physical examination showed a well developed, well nourished white male, who was very pale and in shock. Blood pressure was 80/60 and the abdomen was very tender.

His ulcer and hemorrhage was treated by the usual medical regime. On February 28 his N.P.N. was 77.5, at which time he was started on 25 mgms. of Oreton, intramuscularly, for three days, following which his N.P.N. was 28.

CASE VI. April 15, 1947, white female, aged 51. This patient was operated for an intestinal obstruction on April 15, 1947. Postoperatively she became very toxic and a Levine tube was inserted with continuous gastric suction. She was also given blood transfusions and intravenous fluids. On April 23 her N.P.N. was 97. She was given 25 mgms. of Oreton, intramuscularly, on April 24 and 26, and on April 28 her N.P.N. was 37.

CASE VII. On August 6, 1946, white female, aged 56, entered the hospital with chills and fever. Onset was on August 5 with chills, fever and pain in the back, arms and legs. She had had some edema of the ankles for the past year but no dyspnea or orthopnea. She had some vomiting of a few hours duration.

Physical examination showed a well developed, obese white female. Temperature was 102°, pulse 72, and irregular. The heart was enlarged to the left; her pulse showed a coupled rhythm. Abdomen was obese with marked tenderness over the gall bladder region. The urinalysis showed many white blood cells and an occasional red blood cell. R.B.C.: 3,400,000. W.B.C.: 9,100. N.P.N.: 52. Patient was treated with penicillin, intravenous glucose and digitalis. She was given Oreton, 25 mgms. intramuscularly on August 8, 9 and 11, at which time her N.P.N. was 39.

To date we have used this hormone in approximately 50 cases with reduction of the N.P.N. (urea nitrogen) in all cases. These cases have included both males and females and their ages have ranged from 21 to 83 years. They also cover a variety of conditions, such as nephritis, prostatitis, cholecystitis, heart disease, prostatic hypertrophy, toxemia of pregnancy, post-operative intestinal obstruction, senility, etc.

The reason testosterone reduces nitrogen retention has not been established. It was a common belief that the male sex hormone in large doses would cause nitrogen retention and edema of the ankles. In a review of the literature, little was found on testosterone and renal function. J. K. Latimer[1] found that in dogs the renal function, measured by

inulin clearance and diodrast Tm, was increased by testosterone propionate in proportion to the increase in renal tissue. He also states that in man the largest safe dose of the hormone increased the renal function only when associated with the compensatory renal hypertrophy following unilateral nephrectomy.

Hans Selye[2] (1939) experimenting on the mouse, "found that testosterone caused a marked enlargement of the kidney." Microscopically the enlargement was due to hypertrophy of the proximal and distal convoluted tubule epithelium and that lining the parietal lamina of Bowman's capsule.

McKay[2] (1940) believed that there might be a specific renaltrophic substance in testosterone. Klopp, Young and Taylor[2], studying the renotrophic effects of testosterone in man, favor "using the propionate in amounts comparable on a weight basis with those used in animal experiments. The administration of testosterone propionate, in amounts presumed adequate for renotrophic effects, did not alter significantly the glomerular filtration rate, renal blood flow, the maximum rate of tubular secretion of p-aminohippurate, or the maximum rate of tubular reabsorption of glucose in four normal subjects or in five patients with impaired renal function."

Murphy and Peters[2] state that it is possible the male sex hormone may increase renal function by causing certain metabolic changes. Or, the testosterone may exert a specific renotrophic effect and in this way improve renal function. Another theory could be an increase in the general circulation brought about by improved musculature tone and thus an increase in flow of blood through the renal filter.

In conclusion, we have presented this use of the male sex hormone and hope that it will stimulate others to try it, both clinically and experimentally.

BIBLIOGRAPHY

1. J. K. Latimer, Year Book of Urology, 1943, page 128.
2. Cyclopedia of Medicine 1946, pages 300-304.

Army Presents Basic Science Course

As part of a new medical education program at postgraduate level the Army is presenting a 16-weeks basic science course to a group of picked Army doctors ranging from captains to full colonels. The course, presented in Washington, includes work in chemistry, physics, anatomy, biology, pharmacology and the other basic sciences as they relate to medical diagnosis and therapy. Many of the instructors are from leading medical schools of the country, the Mayo Clinic and other well known medical institutions.

The course is divided into three categories: (1) study of how the human body as a whole utilizes and metabolizes essential substances such as water, carbohydrate, protein, etc.; (2) study of how the body handles these substances when affected by modifying agents or situations such as bacterial invasion, heat and cold, heredity, rate of growth, radiation or drugs; (3) study of the contrast between normal and abnormal functioning of the various systems of the body.

Didactic lecture is held to a minimum in presenting the course and approximately 60 per cent of the allotted time is devoted to laboratory and clinic work. The Army plans to repeat the course once each year.

World Council Meets

The Council of the World Medical Association, organized in Paris on September 18, 1947, held a meeting in New York in April to set the date and place for the 1948 meeting of the general assembly, to elect a permanent secretary and to discuss other business matters. Twelve different countries were represented at the four-day session.

The Council is the governing body of the World Medical Association, organized for the purpose of promoting closer ties among national medical organizations, assisting all peoples of the world to attain the highest possible level of health, furnishing information to the doctors of the world, cooperating with the World Health Organization, the United Nations educational, scientific and cultural organization, and promoting world peace.

One of the matters discussed at the meeting was the adoption of an oath to be taken by all physicians at the time of their graduation to the effect that they would forever abstain from experimental and non-experimental crimes and barbarities. This was thought to be advisable after members had heard a report of the Mission of the European Theater Concerning War Crimes of a Medical Nature, which showed that at least 23 German physicians were involved in the perpetration of such experiments.

Report on Radiocardiography

Scientists can now "see" certain kinds of human heart disorders with the aid of radioactive substances injected into the blood by means of a new technique known as radiocardiography, according to a report presented by Dr. Myron Prinzmetal and his associates to the American Heart Association at its June meeting in Chicago.

In order to obtain graphic records of the flow of blood through the human heart, radioactive sodium is injected intravenously and traced with specially designed ink-writing Geiger-Mueller counters. By this method, it was pointed out, data is obtained which has increased scientific knowledge and understanding of circulatory disorders.

Furacin Solution Approved

Council acceptance of a new product, Furacin solution, has been announced by Eaton Laboratories, Norwich, New York. The solution has the same antibacterial spectrum that characterizes Furacin soluble dressing, including the majority of gram-negative and gram-positive bacteria found in surface infections. It is to be dispensed and used under the direction of a physician.

Blue Shield Finances

Blue Shield plans recorded a total income of $48,445,245 during 1947, according to a financial report released recently from their national office in Chicago. Payments to physicians totalled $37,942,749, amounting to 78.14 per cent of the annual income. Operating expense accounted for 15.37 per cent of the total income, $7,461,570,

EPIDEMIC DIARRHEA IN THE NEWBORN

1. IMPORTANCE

A major cause of death in infancy. Etiology unproven. Mortality rate in full-term newborns about 25 per cent; in prematures, over 50 per cent. Epidemics have occurred in many hospitals. To be alert to the possibility is the best safeguard.

2. PREVENTION

Alertness includes all recommended measures to prevent an epidemic. Analysis of many outbreaks in the past shows that the following are of major importance in prevention:

a. Adequate space in the nursery (20-30 square feet per bassinet).
b. An adequate staff of trained nurses.
c. Individual thermometers, oil bottles, linen, etc., and a sufficiency of hand washing.
d. Thorough terminal sterilization of formula, bottle, nipple, and cap as a unit.
e. Refusing nursery admission to newborn infants with recent family history of diarrhea.
f. Establishment and proper use of a suspect nursery.
g. Prompt isolation of cases of proven diarrhea as they occur.†

3. TREATMENT

Early and Mild Cases: Low fat or fat free formulas or starvation until diarrhea is checked. Fluid and nutritional deficits to be made up by parenteral route. Appropriate specific therapy.

Late and Severe Cases: Primarily involve fluid and electrolyte balances. *Ten per cent dextrose in distilled water* intravenously (10 cc. per pound per each infusion) and Darrow's *potassium chloride solution** (or *normal saline* if KCl solution not available) subcutaneously (15 cc. per pound per each clysis). To counteract severe acidosis, 1/6 M *sodium lactate solution in distilled water* may be substituted for hypertonic glucose solution. *Blood* and *plasma* transfusions (5 to 10 cc. per pound) may be lifesaving. Total fluid requirements will vary from 75 to 150 cc. per pound per day.

Continuous *oxygen* in high concentration. *Sulfadiazine, penicillin,* and oral *streptomycin* singly or in combination may aid in controlling the infection. Parenteral *vitamins* in high dosage should not be neglected.

Nothing by mouth until diarrhea has been checked for 24 hours.

4. BE ALERT

The insidious onset of an epidemic necessitates constant vigilance. A statement of the proposed position of the American Academy of Pediatrics (unofficial as yet) follows:

> *If one infant* from a given nursery develops loose stools, that infant should be isolated. *If two infants* from the same nursery develop loose stools, both infants should be isolated and the nursery put under strict quarantine. No new patients should be admitted until all exposed infants have been discharged and the nursery and its equipment aired, scrubbed, and re-equipped with clean supplies. *If three infants* from the same nursery develop loose stools an *epidemic of diarrhea of the newborn* should be considered to be present and the State Board of Health notified at once.

The State Board of Health is now prepared to send a team composed of a bacteriologist, a virus specialist, a hospital nursing consultant, and a pediatrician, to any hospital asking for assistance in an epidemic.

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† Approved standards for the newborn nursery may be obtained from the committee.

* It is inadvisable to attempt prolonged therapy with Darrow's solution without full knowledge of its action. A review of Darrow's work is obtainable from the committee.

Committee on Child Welfare

CANCER OF THE ESOPHAGUS

INCIDENCE

Cancer of the esophagus accounts for two per cent of the cancer deaths in the United States, and a higher percentage in some other countries. It occurs most commonly between the ages of 40 and 60, and predominates in the male in a ratio near 5:1.

PATHOLOGY

This lesion may be bulky and fungating, and rapidly occlude the lumen of the esophagus, or it may sometimes spread as an infiltrating, ulcerating lesion without much obstruction until late in the course of the disease. Because of the absence of a serosal covering on the esophagus, there is early spread to adjacent structures—the great vessels, tracheo-bronchial tree, recurrent laryngeal nerves, pleura, and pericardium. Lymphatic metastases from the upper-third lesions are most commonly to the peritracheal, periesophageal, anterior jugular, and supraclavicular chains; from the middle-third to the mediastinal and subdiaphragmatic nodes; and from the lower-third to the abdominal nodes—along the cardia and lesser curvature of the stomach.

SYMPTOMS

The outstanding symptom of this condition is difficulty in swallowing—first with solid foods, then progressively with soft foods and finally with liquids. There follows a loss of weight out of proportion to the extent of the disease—starvation because of inability to swallow or pain in doing so.

DIAGNOSIS

1. Think of the possibility of a cancer of the esophagus in any patient over 40 who has difficulty in swallowing.
2. Esophagoscopic examination, with biopsy if feasible.
3. X-ray examination by barium swallow—both fluoroscopic and radiographic. Significant features are obstruction, frequently with dilatation above it, loss of mucosal pattern, and demonstrable ulceration.

TREATMENT

Surgical extirpation offers the greatest hope of permanent cure. If they are in an operable stage, lesions of the lower or middle thirds can be resected with direct anastomosis of the esophagus to the mobilized stomach, which can be brought up to the level of the arch of the aorta. This part of the esophagus contains at least 80 per cent of the cancers. Granted that the percentage of cures is low at present, a start has been made, the operation has been conclusively demonstrated to be practical, and there is now a hope where there was none a few years ago.

Committee on Control of Cancer

PRESIDENT'S PAGE

Dear Doctor:

If this Journal arrives while you are on your vacation, I hope your medical assistant will call it to your attention when you return. If you have not yet enjoyed a nice vacation, I hope you have one planned.

You have read and heard a great deal about the United Nations. If you will read this Journal each month, you can familiarize yourself with some United Notions.

Your committees are swinging into action with an enthusiasm that indicates 100 per cent cooperation in all departments.

The Emergency Defense Committee was very effective in its efforts to defeat the "age 45" clause in the draft bill recently passed by Congress. The Postgraduate section of the Medical School Committee and the Committee on Mental Care have held profitable meetings. One of the most aggressive and far reaching programs was recently outlined by the Allied Groups Committee. Their activities tie in, as do several other committees, with so many important functions of the Society. I hope you will keep posted and lend your personal support to their program of advancing social and professional relationships with the dentists, druggists, nurses, veterinarians, morticians, lawyers, and life insurance salesmen in your community.

Representatives of Blue Cross and Blue Shield are working on a new contract agreement. Some differences of opinion still exist on a few points concerned with administrative functions. I am confident that right will prevail and we shall soon experience a much wider spread of the advantages afforded by this form of voluntary prepaid hospital and medical service. The overall benefits to the people of Kansas must overshadow individual differences of opinion concerning administration of the plans.

At a recent meeting of the trustees of Blue Cross and Blue Shield, a representative of organized labor stated that their membership wanted the type of hospital and medical service offered by Blue Cross and Blue Shield Plans and that they would first try to obtain it in Kansas through such sources rather than seek governmental aid.

Another thing I would like to mention to you concerns newly licensed, recent medical graduates from your community. Don't you think it would be a fine gesture on the part of each county society to elect such persons to membership, have them register their license in their home county and carry such members on a leave of absence basis (without regular full rate dues) until they complete their internship or residency, and establish themselves in the practice of medicine. If they choose to practice elsewhere they would then have to apply for transfer in the usual prescribed manner.

Again may I urge you to submit your ideas for the betterment of the Society, and do all you can to advance the program of the Women's Auxiliary and the medical assistants.

Sincerely yours,

W. Davidson M.D.

President.

EDITORIALS

A.M.A. Chicago Meeting

From where we sat, the American Medical Association Chicago session appeared to be satisfactory to everyone concerned. The scientific papers covered all fields of medicine and were well prepared and presented. The exhibits alone could have occupied anyone's time during the entire meeting, and all who walked the long mile down the Navy pier were rewarded by what they saw. There were no memorable moments, nor did the tense situations arise that so frequently characterize meetings of this kind. It was a happy occasion providing much education and a little entertainment for the 10,000 or 12,000 American physicians who attended.

From where we sat, the House of Delegates had a rather comfortable session, but not being delegates we sat mostly outside the Red Lacquer Room because during executive sessions only regularly elected delegates were permitted to attend. Even those closed sessions apparently did not bring forth any fireworks because much of the time was spent on revising the by-laws and in determining whether the A.M.A. was right or wrong in its decision to drop Blue Shield in favor of a contract written by a commercial carrier.

A brief but effective display of passive resistance was demonstrated by the House of Delegates in a contest with the Board of Trustees over a distinguished service award for lay persons. This was concluded almost as abruptly as it began and the House returned to its debate on whether the by-laws should require the signatures of both the president and the secretary of a state medical society in certifying a delegate or if the signature of one would suffice. This was not an easy matter to dispose of and from where we sat it appeared more than once that a filibuster was developing.

In the end the new officers were duly elected, everyone shook hands and went home. The delegates from Kansas brought credit to this medical society and made many friends. They are now acquainted with the operations of this body and will very shortly make their presence known in a manner of which the Kansas Medical Society will be justly proud.

Exhibits were perhaps more inspiring than ever. Many elaborate displays were prepared by pharmaceutical and surgical supply houses, bringing the newest in technical advancements. Scattered among these were the usual number of cigarette manufacturers, beauty preparations, foods, and foundation garments. At one place a manufacturer of artificial limbs used live models to demonstrate his products. One youngster with both legs amputated above the knee was roller skating through the crowd. Inside the booth a man was eating a combination salad with a spoon and with the use of an artificial arm. Impressive also were the optical company demonstrating a plastic eye that rotated with the normal eye, the highly amplified heart sounds demonstrating cardiac equipment, and of course a wide range of scientific motion pictures.

More impressive was the large section of scientific exhibits, hundreds of carefully planned charts and photographs, and demonstrations illustrating experimental medicine in the United States. Among them were several from Kansas and from the large medical centers in the United States. One section was devoted to atomic research in which were displayed man-made shooting stars and hamsters which had been subjected to large amounts of radioactive substances. Perhaps most impressive of all from where we sat were the televised programs exhibited for the first time, on this scale at least, at any scientific medical meeting. There were many programs broadcast directly from the hospitals in Chicago and from the medical schools, consisting of lectures and demonstrations of surgical techniques. Our impression was that this mode of instruction would very shortly replace other common mediums in as much as large audiences could witness a surgical procedure and see the process more clearly through the use of television than would be possible for the assistant standing directly at the side of the table.

In all, it was a good meeting, perhaps made better because of its lack of surprises and the elimination of the sensational elements that have often detracted from the scientific value of meetings held in the past.

Three Minutes

During the recent American Medical Association meeting we had an opportunity of visiting with a number of Colorado physicians and with Mr. Harvey T. Sethman, executive secretary of the Colorado State Medical Society. During this conversation we heard an interesting story regarding the public relations program currently being carried on by that organization. It operates in many fields, utilizing newspapers and radio broadcasts, but has at least two features that are original as far as we know.

A committee has been organized to conduct a course at the medical school. This is on the subject of public relations and has become popular not only with medical students but among instructors at the school and nurses. The course is conducted by members of the Colorado State Medical Society and presents the need for the individual physician to be aware of the resources available to him in that

field. The course explains what he may do as an individual and in what ways he may cooperate in such a program as carried on by organized medicine. Success in the early sessions has given assurance that this course will be conducted in future years so that eventually a large majority of the physicians practicing in Colorado will have a thorough understanding of the need for public relations and of the manner in which such programs are to be carried out.

The second idea now being tried is expressed with a slogan, "Three extra minutes with each patient." The medical society is attempting to obtain the cooperation of each member to have him spend three extra minutes with each patient for the purpose of discussing one or another of the larger projects in which the society is interested. This may concern hospital construction in the community, the problem of socialized medicine, a blood bank, the cancer drive, or any of a number of other topics. It is recommended that when the physician has concluded his professional services he pause for just three minutes to visit with the patient. He may tell him why, in his opinion, the drive for a local hospital should be supported. Or he may explain what can be accomplished by a proposed chest x-ray survey.

The medical society believes this approach to be effective. The brief leisure period gives the patient a feeling of greater confidence in the physician. He feels that he has learned to know the physician better, and on that basis patient-physician relationships are improved. At the same time the individual patient obtains a clearer understanding of the project under discussion and is considerably more likely to support it when personally advised to do so. He will then repeat this story to his friends and in a surprisingly short period of time the influence of a few casual remarks will spread throughout the community.

Kansas physicians are busy, but possibly not more so than those practicing in our neighboring state. If they can succeed in a program of this type, it might also be beneficial here. At least it seemed worthy of mention and if any member has suggestions to offer on ways in which this idea might be carried out, the Journal will appreciate receiving his comments.

Vote

This is really about voting rather than water. There is a connection, however, like this. The drinking water in your city is safe today, not because the men, women and children demand this protection but because medical science made it possible and the medical profession convinced the community it was beneficial. Nor was it easy. People objected to the cost of filtration plants, and complained bitterly about the taste of chlorine.

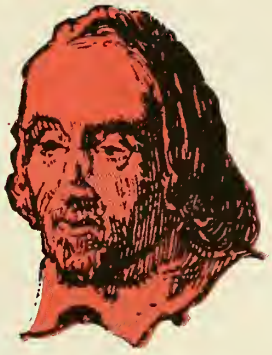
Some physicians will recall this struggle and can remember how indignant city fathers rose to object. Fierce local pride was centered about the purity of the water supply. Superstition prevailed until the medical profession, after long, painstaking effort, finally convinced the public that community health depended upon the adoption of safety measures. As a result, typhoid fever has virtually been eliminated.

Other sanitation measures have been resisted with equal fervor. Misguided enthusiasts rise to malign the medical profession, but in the end the public becomes educated and eventually accepts the recommendations. The struggle to develop a sound, widespread immunization program was first openly resisted and then when cooperation was requested on a voluntary level, public interest faded away. It is only recently that this benefit has received general approval, and regarding virtually all other public health and sanitation improvements the story might be repeaed.

Looking back into history it will be seen that the medical profession has always accepted a larger responsibility than merely to care for the sick. Improvements affecting the public health have almost all grown from ideas first presented by the medical profession. That is perhaps even more noticeable today than at any time in the past. A quick glance at a few of the projects currently occupying the attention of the Kansas Medical Society reveals the need for improved facilities for the treatment of mental patients, more efficient use of all known public health measures, expansion of the Kansas University School of Medicine to provide medical education for more Kansas young men and women, improved medical distribution and hospital facilities, more adequate medical care for the indigent, the creating of wider interest in prepaid medical care benefits, modernizing the medical practice act, a clear expression of the dangers of federally operated medical care programs, and many other equally important items. In all these projects the medical profession is looking ahead toward improving the health of the people of this state. These projects illustrate the acceptance by the medical profession of a moral obligation to guide the way toward higher standards of living.

And that is where voting comes into the discussion. The physician will go to the polls and make his selection for the candidates he prefers and in so doing will exercise his right as a citizen. The physician will also discharge his larger obligation in the field of community well being by his advice

MILESTONES IN CARDIORESPIRATORY HISTORY



Wm. Harvey

(1578-1657)

Discovered and demonstrated the circulation of the blood and the heart's function.

A most important milestone in cardiotherapy was the introduction of Aminophyllin. Its action in stimulating the myocardium to increased vigor of contraction results in augmented cardiac output and increased work.

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ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

SEARLE

RESEARCH IN THE SERVICE OF MEDICINE

on good government as it relates to health. In that role he is following in the footsteps of a long line of physicians who have given us safe water supplies and the many other improvements in health that are currently accepted without question.

A General Practitioner Speaks

Much has been written about the general practitioner in recent months, and many word pictures have been drawn to show his way of life, his place in the community, his type of practice. One of the best of these, as printed in the April, 1948, issue of Medical Annals of the District of Columbia, was prepared by Dr. R. Lee Spire of Washington for presentation at a medical meeting. He spoke as follows:

"You have called on me as a general practitioner. I crave your indulgence for a few moments while I talk about me. Not me as *me,* but as a prototype—a composite of the thousands of doctors in general practice all over our land.

"Nearly forty-two years ago I was given the legal right to append the letters 'M.D.' after my signature. For many decades and in many lands thousands of young men have been given the like honor, but I am sure that there was never anyone more proud of that honor than I. I was a doctor—not an 'ist' or an 'ologist,' but just a plain doctor. In the many years that have elapsed nothing has ever transpired to lessen that pride.

"I opened an office in a growing community and became a part of the life of that community. As I became known and as my practice grew, I was consulted not only on medical matters but on every conceivable subject. I was a friend of the people in that group, and they were my friends. There was a large parochial school in the neighborhood and the little boys always touched their caps when I passed or spoke to them. As these boys grew to manhood I strove to merit the respect they accorded me as a physician. A kind of flattery?—probably—but I liked it. I did not even mind being called 'Doc.' It meant to me no lessening of dignity. It was more like being called a nickname by some cherished friend. And this mutual respect and friendship paid dividends—dividends to the patients and to me.

"Many times on coming downstairs from the sickroom, mother would have a plate of fresh cookies or a piece of cake and a glass of milk. While enjoying these, there would always be a little chat, and in the confidence begotten by these little intimacies, frequently mother would mention some little thing with an apology for its being trivial—something to which she did not ascribe sufficient importance to justify a visit to the office.

"She might mention that she had found a little lump in her breast, 'Nothing important, Doctor,' but often examination revealed a malignant tumor in time for surgery to prevent an early death from cancer. Or she might tell me that father had felt some twinges of pain in his chest while shoveling snow or taking out the ashes. Investigation has enabled me many times to diagnose an early coronary disease and prolong life for a number of years.

"Sometimes it would be that Mary was so tired when she came home from school—her appetite wasn't good, and once or twice there was a flushed face and mother thought there might be a little fever. Examination and x-ray studies made possible a diagnosis of pulmonary tuberculosis before infection by other members of the family occurred, and in time for successful treatment.

"Again it was Johnnie who was having 'growing pains' and could not play ball because of 'shortness of breath.' 'You know, Doctor, he has grown so fast in the past year or two.' Johnnie's trouble was not 'growing pains.' It was a rheumatic heart disease, and in many instances there was still time to prevent too serious heart damage.

"This patient-doctor relationship has no substitute—it must not be lost. It is the very heart of American medicine. If the art of the general practice of medicine is restored to its proper place and dignity by organization or by swing of the pendulum away from the present tendency to overspecialization, so that more young men are attracted to the field of general practice, this relationship will not be lost.

"We have been, as it were, playing a game of football. For years the general practitioner carried the ball and made all the scores. Lately, however, someone has stolen the ball from us and we are left just looking on. We must carry the ball again. We need the specialists to run interference and block out tacklers that are too tough for us, but the job of carrying the ball is ours and we must get it back. We can get it back only if we can bring about a recognition of the value of the family doctor and restore him to his rightful place in our American life."

Research Fellowships Available

The American College of Physicians announces that a limited number of fellowships in medicine will be available from July 1, 1949, to June 30, 1950. The fellowships are designed to provide an opportunity for research training either in the basic medical sciences or in the application of these sciences to clinical investigation, and are for the benefit of physicians who are in the early stages of preparation for a teaching and investigative career in internal medicine. The stipend will be from $2,200 to $3,200.

Applications must be submitted in duplicate not later than November 1, 1948. Application forms will be supplied on request to the American College of Physicians, 4200 Pine Street, Philadelphia 4, Pennsylvania.

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Adding cooled boiled water to BIOLAC—as her physician directs—is the only precaution that a vacation-minded mother need take when preparing her infant's formula during the summer months. This simple procedure not only facilitates formula preparation, but also minimizes the possibilities either of contamination under adverse travel or resort conditions, or the chance omission of needed vitamins, carbohydrates or iron. BIOLAC, when supplemented by vitamin C, is a complete infant food. In readily assimilable form, it dependably provides all the essential proteins, vitamins, minerals, carbohydrates and other nutritional factors needed for optimum health.

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Biolac is a liquid modified milk, prepared from whole and skim milk, with added lactose, and fortified with thiamine, concentrates of vitamins A and D from cod liver oil, and iron citrate; only vitamin C supplementation is necessary. Evaporated, homogenized and sterilized. Available in 13 fl. oz. tins at drugstores everywhere.

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EXECUTIVE OFFICE

Material for this column is taken from articles coming to the attention of the Executive Office. They may concern controversial issues and will not necessarily reflect the editorial opinion of the Journal. Articles republished or summarized here are presented because it is believed they will be of interest to the medical profession in Kansas.

German Experience with Social Insurance

The above is the title of a book recently published by Walter Sulzbach. A rather complete summary of the book was issued by the Bureau of Medical Economic Research of the American Medical Association, and it is from this summary that the following excerpts are taken.

Compulsory social insurance was introduced in Germany by Chancellor Bismarck in 1881. It was an effort on the part of the government to gain the support of the laboring classes. This attempt was successful because employers were required to pay part of the premiums. The basic flaws existing in the program did not become widely apparent until the depression of 1932.

German sickness insurance was started in 1883. At first it was a small project with premiums set at 1½ per cent of the wages, one-third of which was paid by the employer. At various times benefits were extended and in 1925 premiums had increased to six per cent of the overall wage. Along with that, coverage was extended and benefits increased. At the peak of the program in 1928, three-fifths of the entire population was insured. With all this money coming in, benefits were expanded and very shortly thereafter the whole system broke down until Hitler artificially stimulated the German economy.

Among the problems that have never been solved in Germany are the following. First might be mentioned the great cost of administration. There were four government clerks employed for every three physicians participating in the program. A second problem is that of malingering. The duration of illness increased progressively from 14.1 days per illness in 1885 to 29.3 days per illness in 1932. The latter figure is 70 per cent higher than in the United States. Cash benefits which were often almost equal to full wages made it possible for the worker to take a paid vacation on sick leave. Supervising doctors appointed to curb such abuses found up to 50 per cent of the persons on sick lists able to work. Then came counter measures, and the government inaugurated a plan of risk sharing, popularly known in the United States as deductible insurance. When the government required a fee of the individual, to be paid in addition to government benefits, insurance claims promptly dropped more than 50 per cent.

At first German physicians saw no danger. By 1913 they threatened to revolt but found it was too late. By 1928, 80 per cent of all German doctors were employed either full or part time by the government and their pay from the government averaged $2,620 per year. For all German physicians this represented 60 per cent of their total income. Each physician was required to take care of 1,350 insured persons, which was cut in half during the depression to give some income to more doctors.

"As physicians received standard fees for their services, their incomes depended on the number of insured patients treated, rather than on the quality of the service. If a doctor liberally certified that workers were entitled to benefits, he was popular and his income was greater than that of a physician who attempted to thwart malingerers. The workers complained that physicians gave them insufficient care and preferred their private patients. If beneficiaries expect the personal care which they receive under private practice, and if physicians are to be paid according to their merits, health insurance premiums would have to be raised to a level that would exclude the lower income groups.

"The achievements of the German health insurance program are difficult to estimate. Infant mortality and the death rate showed a substantial decline after compulsory health insurance went into effect, but no more so in health insurance countries than in countries without such programs. The deficiencies of the system are far more apparent, and are instructive to American social planners. Supervising doctors had to be withdrawn from practice in order to prevent abuses. Malingering made premiums excessively stiff and reduced production by increasing unnecessary absenteeism. Risk-sharing was absolutely necessary, but extremely unpopular. The incidence of the premium paid by the employer fell on the worker in the form of lower wages or decreased employment; thus the entire cost of the program was actually borne by the insured."

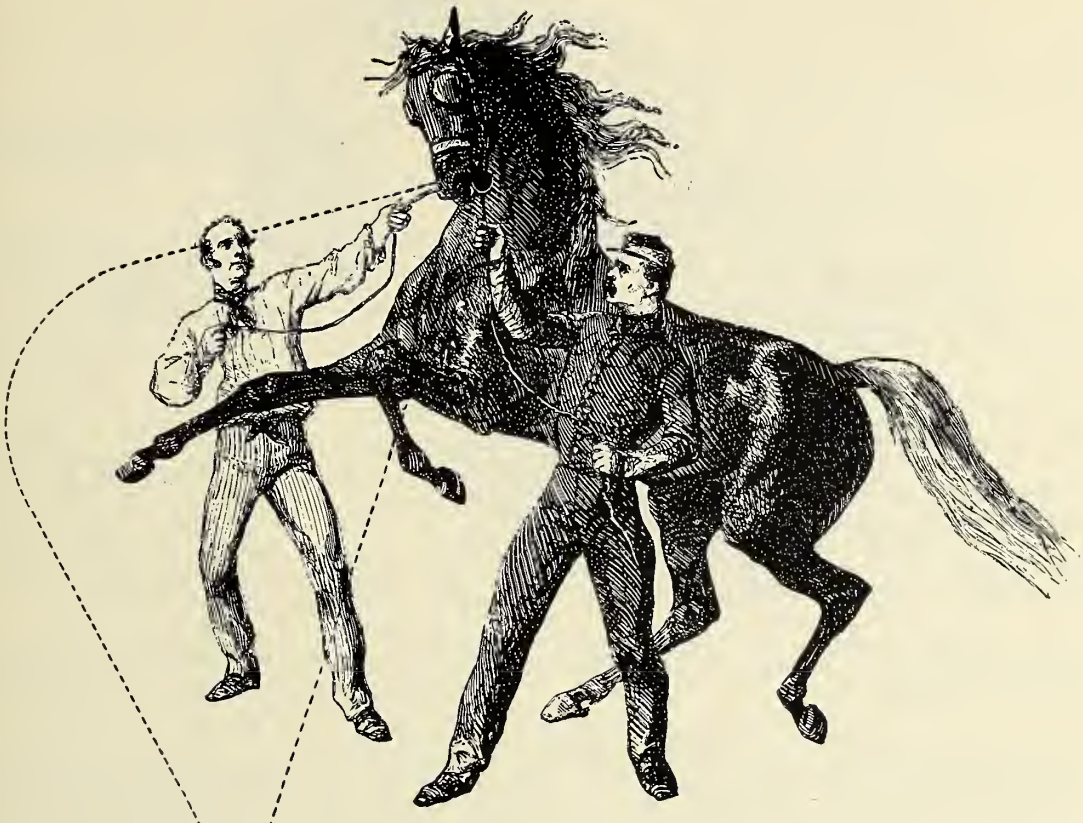
The experience with reference to accident and old age insurance is comparable to the experience already accumulating in the United States. Cost are high and apparently show no signs of becoming stabilized. For instance, it has been estimated that the old age insurance plan in the United States will cost 13 times as much in the year 2000 as it is costing at present. High cost and the general failure of the plan also represent the story on unemployment insurance except here, it is pointed out, unemployment is not an actuarial risk and insurance against loss of income on that basis cannot have a sound financial structure.

The German program shows two primary trends. There is an ever increasing demand for government subsistence. By way of example, in the brief period between 1913 and 1930, taxation for social security rose 217 per cent in Germany. During that same period, however, federal contributions went up 746 per cent. It is of course obvious that this money comes from the general tax income, so it should be noted that where a broad social security program is in force not only do those taxes rise in the nation but the general tax structure as well. In the year 1929 one German in six drew part or all of his income from social insurance. It is certain, therefore, that the primary benefit of the German social insurance came to the politician rather than the public, and once such a program is in operation a strong bureaucracy exerts considerable pressure to have its program expanded.

Insurance Fund Sponsors Research

An additional $103,000 in research funds for heart disease was announced last month by the Life Insurance Medical Research Fund, raising to nearly two million dollars the amount provided by the fund since it was organized in December, 1945. The awards include 12 student fellowships, three postgraduate fellowships and nine grants in aid to hospitals and universities.

The purpose of the fellowships, according to the announcement, is to help meet today's pressing need for qualified men and women trained in research techniques. Student fellowships, ranging from $1,500 to $1,800, go to those who have not yet received their doctorate degrees and provide for a year's additional undergraduate training under leading scientists. Postgraduate fellowships, amounting to between $2,500 and $4,000, provide for similar study for graduate workers.



STOP is often easier said than done

STOP is now almost as easily done as said, when bleeding must be halted. GELFOAM*, an absorbable hemostatic gelatin sponge, quickly arrests the flow of blood in a large variety of surgical wounds. Oozing surfaces, capillary bleeding, trickling from small veins, hemorrhage following resection yield readily to its hemostatic powers. Cut or molded to the desired shape and applied with or without thrombin, GELFOAM may be left *in situ* to be absorbed without harmful tissue reaction.

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MEMBERS

Dr. J. A. Blount, Larned, has been named Pawnee County health officer to succeed Dr. W. R. Brenner, Larned.

* * *

Dr. Karl Menninger, Topeka, will preside at the Harvard Summer School Conference on Mental Health to be held at Cambridge, Massachusetts, July 21 and 22.

* * *

Dr. Ernest Brandsted, who has been practicing in Liberal during the past year, has enrolled for 18 months postgraduate work in obstetrics and gynecology at Northwestern University and Cook County Hospital, Chicago.

* * *

Dr. F. W. Hall, Winfield, completed examinations for the American Board of Internal Medicine at San Francisco recently and is now a diplomate of that board.

* * *

Dr. Edward D. Greenwood, Topeka, was a speaker at a meeting of the American Orthopsychiatric Association in New York last month. He discussed problems of a residential psychiatric program before personnel from residential psychiatric schools of the nation.

* * *

Dr. C. C. Tucker, Wichita, prepared a paper, "Lymphomas of the Anorectum," for presentation at the A.M.A. meeting in Chicago last month.

* * *

Dr. H. H. Dunham, Cawker City, has accepted a position as resident physician at the University of Kansas Medical Center in the department of radiology.

* * *

Dr. George L. Norris, Winfield, is attending a postgraduate course entitled "Psysiological Basis for Internal Medicine" which is being offered by the American College of Physicians at the University of Illinois College of Medicine.

* * *

Dr. H. O. Williams, Cheney, is spending the summer in Portland, Maine, where he is taking a postgraduate course offered by the Ophthalmological Study Council.

* * *

The Laity Lecture delivered by Dr. William C. Menninger, Topeka, before the New York Academy of Medicine will be published by the Columbia University Press in the fall. The subject is "Psychiatry for Everyday Needs."

* * *

Dr. R. K. Purves, Wichita, recently became superintendent of the Sedgwick County Hospital, succeeding Dr. Harold L. Low, who has entered private practice.

* * *

Dr. Don C. Wakeman, Topeka, announces that Dr. John Crary is now associated with him in practice. A graduate of the University of Kansas School of Medicine in 1943, Dr. Crary recently completed a residency at Winter VA Hospital, Topeka.

* * *

Officers of the Kansas State Board of Health were reelected at a meeting held in Topeka June 17. Those named are Dr. George I. Thacher, Waterville, president; Dr. R. T. Nichols, Hiawatha, vice president; Dr. F. C. Beelman, Topeka, executive secretary.

* * *

Dr. G. W. Hammel, El Dorado, recently became a diplomate of the American Board of Internal Medicine after having passed examinations given at San Francisco this spring.

* * *

Dr. S. A. Scimeca, who formerly practiced in Augusta, has opened an office in LeRoy.

* * *

Dr. H. S. Albaugh, who has been practicing in Olathe since 1932, has announced the closing of his office to devote full time to directing the Johnson County Health Department.

* * *

Dr. Thomas R. Hood, Winfield, who has been serving as health officer for Cowley County, will go to Cambridge, Massachusetts, next month to enroll for a year's graduate course in preventive medicine and public health.

* * *

Dr. E. W. Crow recently returned to Wichita after having served in the Army and is now a resident at Wesley Hospital.

* * *

Dr. R. J. Metcalf, El Dorado, has been named temporary health officer of Butler County to fill the vacancy created by the resignation of Dr. E. J. Beckner some months ago.

* * *

Dr. Fred Mayes, who has been doing graduate work at Harvard, returned to Kansas last month to become director of public health for the city of Wichita.

* * *

Dr. D. G. Laury, who has been practicing in Garnett, has moved to Baldwin and is now associated in practice with Dr. V. H. Hildyard.

* * *

Two members of the staff of the University of Kansas Medical Center presented papers at the A.M.A. meeting in Chicago last month. Dr. Paul H. Lorhan discussed aspects of anesthesia and premedication for surgery, and Dr. Donald L. Rose spoke on physical treatment of shoulder injuries.

* * *

Five physicians from the Hertzler Clinic, Halstead, presented an exhibit on pelvic surgery at the A.M.A. meeting last month, Dr. Irene A. Koeneke, Dr. V. E. Chesky, Dr. G. A. Westfall, Dr. L. O. E. Peckenschneider and Dr. Thomas L. Foster.

* * *

Dr. George Arack, a member of the staff of the Arkansas City Clinic, has taken a leave of absence to accept a fellowship in internal medicine and research with the Cleveland Clinic, Cleveland, Ohio.

* * *

Dr. Joseph H. Spearing recently completed a residency at the Jennie Edmundson Memorial Hospital in Council Bluffs and is now practicing in Harlan, Iowa. His father, Dr. Joseph W. Spearing, continues to practice in Columbus, Kansas.

* * *

Dr. J. R. Nevitt, Iola, announces that Dr. Eugene Myers, formerly of Kansas City, is now associated with him in practice.

* * *

Dr. R. H. Hill, who has been practicing in Meade during the past year, has moved to Liberal to become a member of the staff at the Medical Arts Clinic.

* * *

Dr. Edward M. Fitzgerald, who for some months has served Blue Shield as medical director, has been forced to take an extended leave of absence upon the advice of his physician. For the present he will vacation in Minnesota, after which time he plans to locate in California.



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Merle L. Youngs
PRESIDENT

COUNTY SOCIETIES

Dr. A. L. Ashmore, Wichita, was named president of the Sedgwick County Medical Society at a meeting held May 25, and will take office next January. Other officers chosen are as follows: vice president, Dr. J. P. Berger; secretary, Dr. L. P. Warren; treasurer, Dr. J. L. Beaver; censor, Dr. E. H. Terrill.

* * *

The Labette County Society met May 27 at the Katy Hospital, Parsons. Dr. Roland Kieffer, St. Louis, chief surgeon of the Katy Employees' Hospital Association, discussed "Surgical Treatment of Hypertension." Dr. D. J. Verda, associate surgeon of the association, spoke on other aspects of hypertension, and Mr. A. J. Pickett, executive member of the hospital board, told of the activities of the association.

* * *

The Southeastern Kansas Medical Society met at the Independence Country Club June 5. Three members of the staff of St. Luke's Hospital, Kansas City, presented a scientific program. They were Dr. Erwin Brown, urologist; Dr. James Danglade, internist; and Dr. F. C. Helwig, pathologist.

* * *

The Crawford County Medical Society held a meeting at Pittsburg May 27. Dr. Franklin Murphy, dean-elect of the University of Kansas School of Medicine, Kansas City, discussed the problems of postgraduate medical education for general practitioners, and Dr. David W. Robinson, head of the department of plastic surgery at the university, spoke on the treatment of burns.

* * *

Members of the Cowley and Sumner County Societies attended a meeting of the Tri-County Medical Society at Ponca City June 10. Two Tulsa physicians, Dr. H. A. Brocksmith, internist, and Dr. J. R. Pekeula, pathologist, presented the scientific program.

* * *

A meeting of physicians of Harvey, Marion and McPherson counties was held at Halstead June 7. Dr. James S. Hibbard, Wichita, was guest speaker.

Jayhawker M.D.

The 1948 issue of the Jayhawker M.D., published annually by senior students and nurses of the University of Kansas School of Medicine, is dedicated to Dr. Frank C. Neff, professor of pediatrics, who died December 3, 1947.

The annual presents pictures of the dean, members of the faculty, members of the different classes and feature articles. It is published each year in May and those wishing copies may place their orders with the registrar at the Medical Center.

Dr. Hope Representative Delegate

A unique honor came to Dr. Hugh A. Hope of Hunter recently which gave him an opportunity to serve the medical profession of the United States. The splendid way in which Dr. Hope performed this service reflected considerable glory to the Kansas Medical Society, for which this organization is proud.

Dr. Hope was selected by the American Broadcasting Company as the representative delegate to the Republican national convention, who would speak to the entire United States by way of radio and television daily about convention affairs. Each day for a week Dr. Hope visited for 15 minutes with many millions of people, telling the nation not only of the affairs of the convention but of his interest in the practice of medicine. He spoke of the services rendered this nation by its doctors. He told of improved medical care as the result of discoveries made during the past few years, and he spoke of the dangers involved under a socialized medicine program.

Dr. Hope took every advantage of this opportunity and during that period of time did an immeasurable amount of good to the cause of free enterprise and to the ideals of the medical profession and of the Kansas Medical Society, of which he is a member.

Future A.M.A. Meetings

Future meetings for the American Medical Association have been scheduled several years in advance. For the general information of members of the Kansas Medical Society who might plan to attend, these are as follows:

The midwinter meeting of the House of Delegates of the A.M.A. will be held in St. Louis from November 30 through December 3, 1948. The 1949 convention of the A.M.A. will be held at Atlantic City from June 6 through June 10. The 1950 annual meeting will be at San Francisco, beginning June 26 through June 30, and in 1951 the A.M.A. will return to Atlantic City.

Death Notices

JAMES GARFIELD JANNEY, M.D.

Dr. James G. Janney, 64, who had practiced in Dodge City since 1919, died at a St. Louis hospital May 26 as the result of injuries received in an automobile accident. A graduate of Ensworth Medical College, St. Joseph, Missouri, in 1910, Dr. Janney specialized in eye, ear, nose and throat practice. He was an active member of the Ford County Medical Society.

* * *

LEWIS GEORGE ALLEN, M.D.

Dr. Lewis G. Allen, 57, who had been prominent in Kansas Medical Society activities for a number of years, died of leukemia in a Kansas City hospital May 28. He completed one three-year term as councilor for the second district this year and on May 13 was re-appointed to that office.

Dr. Allen, who was a nationally known radiologist, was graduated from the University of Kansas School of Medicine in 1917 and taught radiology there for a number of years. He served in the medical corps during World War I, and began private practice in Kansas City after that time.

He was a past president of the Wyandotte County Medical Society, the Kansas City Southwest Clinical Society, and the Radiological Society of North America. He was also a diplomate of the American Board of Radiology and held membership in the American Roentgen Ray Society, the American College of Radiology and the American College of Physicians.

* * *

FRANCES MORRELL WILMER, M.D.

Dr. F. M. Wilmer, 77, who had practiced in Winfield for 48 years, died June 22. He was an honorary member of the Cowley County Medical Society, and two years ago was presented a gold key from the society in recognition of his 50 years in the practice of medicine. A graduate of the University of Illinois College of Medicine, Dr. Wilmer interned at Chicago Eye and Ear Hospital and specialized in eye, ear, nose and throat work.

MEAT

And the Dietary of Pregnancy and Lactation

According to a study published in the recent past[1] it has been shown that nitrogen balance is suddenly reversed from positive to negative shortly before term. This negative balance is further intensified by substantial losses of nitrogen during parturition and the postpartum period. Lactation imposes still another burden on nitrogen metabolism.

This study again emphasizes the need for a diet rich in biologically complete protein during the latter half of pregnancy. In this manner, the physiologic loss of nitrogen at term can be compensated, avoiding negative nitrogen balance. A high protein diet has the further advantage of producing a more copious milk supply.

In another recent publication,[2] the prevention of the toxemias of pregnancy by dietary means was stressed. Foremost among the measures recommended was a diet rich in high quality protein to assure nitrogen balance.

Meat is an outstanding source of protein in the dietary of pregnancy and lactation for these four reasons: (1) It is notably rich in protein, from 17 to 20 per cent of its uncooked, and from 25 to 30 per cent of its cooked weight; (2) The protein of meat, regardless of cut or kind, is biologically complete; (3) The appetite appeal of meat is high, and (4) All meat is of excellent digestibility—from 96 to 98 per cent.

1 Stuart, H.C.: Effects of Protein Deficiency on the Pregnant Woman and Fetus and on the Infant and Child, New England J. Med. 236:507 (Apr. 3) 1947.

2 Zeigler, R.F., Jr.: Pre-eclamptic Toxemia of Pregnancy. North Carolina M. J. 8:655 (Oct.) 1947.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

ACCEPTED COUNCIL ON FOODS AND NUTRITION AMERICAN MEDICAL ASSOCIATION

American Meat Institute

Main Office, Chicago ... Members Throughout the United States

Evaluation of BCG Vaccine

Vaccination with BCG does not provide complete protection against tuberculosis and, until further controlled studies are conducted, cannot be recommended for the general population. However, since BCG appears to provide some degree of protection, it is recommended for members of groups constantly exposed to tuberculosis if they have a negative reaction to the tuberculin test.

These conclusions are contained in a statement of policy adopted by the Executive Committee of the American Trudeau Society, Medical Section of the National Tuberculosis Association, and published in the March issue of the NTA Bulletin. This is the first official statement by the ATS on BCG.

Dr. H. McLeod Riggins of New York, chairman of the ATS Chemotherapy Committee which prepared the report on which the statement is based, explained recently that BCG vaccination, developed by Calmette and Guerin from a non-virulent strain of tubercle bacilli, causes a primary tuberculosis infection. As a result of this infection, the body increases its resistance to the disease, inducing an artificial immunity of varying degree. A positive reaction to the tuberculin test, according to Dr. Riggins, indicates that a person has had a primary tuberculosis infection and his body has built up a degree of acquired immunity. Persons having a positive tuberculin test reaction probably do not benefit from vaccination with BCG, he said.

The statement emphasizes that further studies are necessary to determine the true value of BCG and points out that the vaccine cannot be regarded as a substitute for approved public health measures to protect the public from tuberculosis. Until additional information is obtained, vaccination of the general population cannot be recommended except for carefully controlled investigative programs, several of which are now under way. These programs, the statement suggests, are usually best carried out under the auspices of official agencies, such as the U. S. Public Health Service, state and municipal health departments and other especially qualified groups.

Although studies thus far made indicate that the incidence of tuberculosis may be reduced when groups likely to develop the disease because of unusual exposure to tuberculosis are vaccinated, the statement points out that the degree of protection afforded the individual is not complete and the duration of relative immunity is not known.

BCG vaccination is recommended for the following groups if they are subjected to more than ordinary exposure to tuberculosis: doctors, medical students and nurses; hospital and laboratory personnel whose work brings them in contact with the bacillus of tuberculosis; individuals who are unavoidably exposed to tuberculosis in the home, and patients and employees of mental hospitals, prisons and other custodial institutions among whom the incidence of tuberculosis is known to be high.

Even with these groups, the statement warns against placing complete reliance on BCG for protection and points out that proper precautions should be taken to minimize or prevent "undue hazardous exposure of hospital patients and personnel and members of a household if an infectious patient is under treatment in the home."

While the vaccine, when prepared under ideal conditions and administered to tuberculin-negative persons by approved techniques, may be considered harmless, the statement does not advocate that BCG be made available for general distribution in the United States at present because: (1) the most effective strain of BCG has not been determined nor has satisfactory standardization of the vaccine been achieved, (2) the best qualified experts have not agreed as to the most effective vaccination procedure to employ and (3) fully satisfactory arrangements have not been perfected for transportation and storage of the vaccine.

It is further recommended that the vaccine be prepared only in laboratories especially devoted to this task and where virulent tubercle bacilli are not cultivated or handled and where all possible precautions are exercised to assure safety of the product.

"Fortunately, great advances have been achieved during recent years in the development of diagnostic methods applicable on a mass scale and there have been equally great improvements in the surgical and medical treatment of tuberculosis," the statement concludes. "The expansion of modern diagnostic and therapeutic facilities is required at this time to make full use of these new methods which can accomplish further dramatic reduction of tuberculosis mortality and morbidity rates in the United States.

"It is to be emphasized that BCG vaccination must not be regarded as a substitute for approved hygienic measures or for public health practices designed to prevent or minimize tuberculous infection and disease. Vaccination should be regarded as only one of many procedures to be used in tuberculosis control. Vaccination seems unwarranted: (a) in areas in which the tuberculosis mortality rate is extremely low and (b) in localities in which the tuberculin test is of especial value as a differential diagnostic procedure."

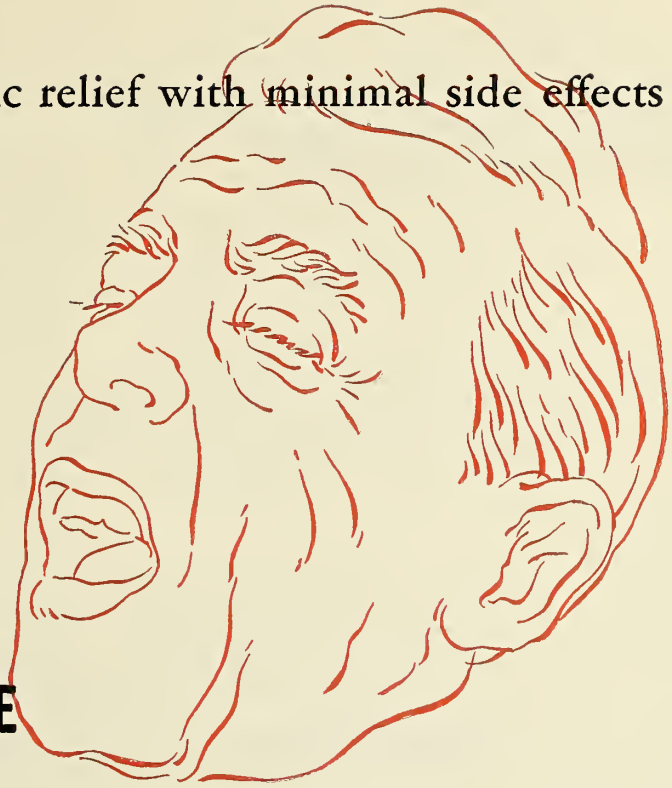
Changes in Board Requirements

A number in changes in requirements and regulations were made at the annual meeting of the American Board of Obstetrics and Gynecology, Inc., held in Washington, D. C., in May. These relate both to candidates and to hospitals conducting residency services for training. Foremost are the following:

1. The ruling that applicants must receive adequate training in both obstetrics and gynecology has been defined as meaning a minimum of six months, full time, in the branch of either obstetrics or gynecology relegated to a minor role in a candidate's training and preference for practice.
2. Acceptable preceptorship training is defined.
3. The present regulation requiring at least six months of practice in the specialty following the completion of an acceptable training period has now been extended, effective December 31, 1949, to a requirement of two years post-training practice limited to the specialty.
4. Specific requirements for approval of hospital services for residency training are outlined.
5. Effective immediately, there will be no further temporary approvals of hospital services for residency training. It is planned that all hospitals holding any type of residency training approval will soon either be resurveyed or initially surveyed by the Council on Medical Education and Hospitals of the A.M.A. so that all future approvals, new or old, will be based entirely upon inspection following application. It is expected also that certain resurveys will result in withdrawal of present residency approval from institutions where the educational and training standards are not being maintained.

New bulletins are now available for distribution upon application and give complete information on all new regulations. They may be secured from American Board of Obstetrics and Gynecology, Inc., 1015 Highland Building, Pittsburgh 6, Pennsylvania.

symptomatic relief with minimal side effects



in
hay fever

PYRIBENZAMINE

During the last two pollen seasons, the effectiveness of Pyribenzamine hydrochloride in hay fever has been demonstrated repeatedly . . . 84% of 288 cases[1] — 78% of 588 cases[2] — 82% of 254 cases.[3]

Side effects are few and for the most part mild: — "No serious side effects have been noticed in any patients."[1] "In our opinion, reactions to Pyribenzamine are minimal and seldom necessitate stoppage of the drug."[4] The usual adult dose is 50 mg. four times daily.

1. Arbesman, C. E.: *N. Y. State Jl. of Med.*, 47: 1775, 1947.
2. Loveless, M. H.: *Am. Jl. of Med.*, 3: 296, 1947.
3. Bernstein, Rose and Feinberg: *Ill. Med. Jl.*, 92: 2, 1947.
4. Osborne, Jordon and Rausch: *Arch. of Derm. & Syph.*, 55: 318, 1947.

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Army Doctors Study Atomic Destruction

If an atom bomb should fall on an American city, the population would be faced with the greatest emergency in its history, report Army medical corps officers who are conducting continuous study of the problem. It is by no means true, however, that the entire population would be wiped out, nor that nothing could be done to help the survivors.

Although there is no known method of protecting those in the immediate vicinity of an atomic bomb when it explodes, the doctors say, a great deal has been learned about mitigating the secondary effects of ionizing radiation and about protecting survivors who have received less than a lethal dose. They believe that many lives may be saved by widespread knowledge of therapeutic measures among physicians and by a general understanding of preventive measures which can be taken by the general population.

The real difference between ordinary high explosives and atom bombs is the enormous amount of radiant energy produced by the latter, energy covering the whole range of wave lengths from heat waves to million-volt gamma waves.

The radiant energy may be divided into two types, ionizing and non-ionizing. The most important type of injury noted in Hiroshima and Nagasaki was, of course, that due to the ionizing component of the radiant energy from the bomb. Four known kinds of penetrating radiation can be expected within the immediate area of the blast.

First to be expected is gamma radiation, essentially the same as x-ray. In an atom bomb explosion, however, these are 200,000,000 volt x-rays. They are lethal to anyone within roughly a mile of the blast and do serious damage to those as close as a mile and a half, but their range is limited to approximately two miles. They move with the speed of light, and most of them are produced at the instant of explosion.

Secondly, radiation comes from neutron beams, streams of heavy atomic particles shot out in all directions within a millionth of a second of the explosion. They have slightly less range than gamma rays. Both gamma rays and neutron beams pass through matter such as blood, bone or flesh, produce extensive ionization of the atoms which make up body cells and result in the breakdown of chemical bonds, thereby causing profound alterations in cellular function. The fact that some kinds of cells, such as certain types of cancer cells, are affected more easily than others is the basis of radiation therapy. Whatever damage is done in this way is instantaneous, although observable symptoms may not appear for some time.

Beta rays make up the third kind of radiation, streams of electrons which rarely penetrate the skin and whose effects will be found chiefly on the surface.

Fourth are alpha particles, the nucleii of helium atoms, which do not get through the cornified layer of the skin. Because of their low penetrating power, it is not likely that either the beta rays or the alpha particles resulting directly from the explosion will cause fatal injury.

Army doctors admit that there is not much a physician can do about the immediate radiation from an atom bomb explosion. In such an eventuality, however, there will be a need for large scale treatment for fractures, contusions, lacerations and burns. Also, some aid may be given to victims of many sorts of secondary radiation dust spread by the explosion, radioactivity caused by neutron captured by atoms, or radioactive spray if the bomb is dropped in water. Against this secondary radiation various safeguards can be provided, and Army, Navy and Atomic Energy Commission scientists are working on the problem. One important line of research is in the efficacy of blood transfusions, since it has been established that one of the most serious effects of radiation is damage to the blood-forming elements such as the bone marrow.

WHO Constitution Ratified

The United States and four other nations, Brazil, Bulgaria, France and Rumania, officially accepted the constitution of the World Health Organization during the past month, bringing to 43 the total number of countries which have now ratified the constitution. Thirty-three are United Nations members and ten are not.

President Truman, when signing the bill for U. S. membership in WHO, said, "I have today signed a joint resolution providing for the United States membership and participation in the World Health Organization. I have at the same time signed the instrument of acceptance of the constitution of the World Health Organization, which will immediately be sent to the United Nations for deposit.

"In view of the long history of effective international co-operation in the field of health which spares us the haunting fear of devastating epidemics of cholera and plague, we can look to the World Health Organization with hope and expectation.

"While performing its humane service, it will at the same time contribute to general economic improvement through the progressive development of healthy, alert, productive man power. The world economy is seriously burdened, and unnecessarily so, by malaria, tuberculosis and other controllable diseases. The World Health Organization can help contribute substantially to the attainment of the healthy, vigorous citizenry which the world needs so badly today and tomorrow.

"I am proud to have signed this joint resolution which makes it possible for the United States to continue its leadership in this important work. In the technical field of health we hold today a pre-eminent position. We must and will give freely of our great knowledge to help liberate men everywhere from the overhanging dread of preventable disease.

"In doing so, through the World Health Organization, we once again testify to our faith in the United Nations as the great instrument for reaching those goals of common understanding and mutual helpfulness among nations which alone can lead to peace and security for all peoples."

A.C.S. Approves Use of Nurse Anesthetists

The Board of Regents of the American College of Surgeons at a recent meeting adopted a resolution commending the services of nurses who have had special training in the administration of anesthesia and recommending the continuance of training courses in this field for nurses. The resolution reads as follows:

"The American College of Surgeons regards with deep concern the actions of some physician anesthesiologists in giving the impression to the laity in the public press that it is unsafe for experienced nurse anesthetists to conduct surgical anesthesia. While it supports the increasing tendency of having physician anesthesiologists in charge of surgical anesthesia, it deplores at this time any propaganda for the elimination of the trained nurse anesthetist. On the contrary, the American College of Surgeons is of the opinion that, in view of the inadequacy in number of the physician anesthesiologists and in view of the splendid record of achievement of the nurse anesthetists, institutions engaged in the training of nurses for this purpose should be encouraged to continue their programs."

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World Health Assembly

On June 24 the first World Health Assembly convened at the Palais des Nations in Geneva, with representatives of nearly all the nations of the world expected to attend.

Seventy-three governments, 18 United Nations specialized agencies and non-governmental organizations, as well as the occupation authorities of Germany, Austria, Japan, Southern and Northern Korea have received invitations to the assembly, which will consider proposals affecting the welfare of people throughout the globe.

"The principal task of the assembly," says Dr. A. Stampar, chairman of the WHO Interim Commission, "is to secure international agreement on the best means of applying available knowledge and resources to the prevention of avoidable suffering and the raising of standards of health."

Declaring that today only a very small proportion of the people enjoy the benefits to their health science can bring, Dr. Stampar points out that the knowledge and the tools required for the improvement of health in all countries are available, and it is becoming increasingly possible to alter detrimental environments and to work toward a positive conception of health.

The constitution of the WHO is based on the concept that more is required than an international system of defense against communicable diseases. Proposals have been made to concentrate on four main programs, malaria, maternal and child health, tuberculosis, and venereal diseases.

The proposed program in the field of maternity and child health aims at reducing the large number of preventable deaths among infants and mothers and controlling the high incidence of communicable and other preventable diseases among children. Governments would be assisted to develop facilities and services.

Blue Shield Adopted Nationally

Blue Shield has been adopted as the official name and insignia for the non-profit, prepayment medical care plans in the United States, as the result of action taken recently by the Commission of Associated Medical Care Plans.

Prior to the establishment of AMCP in 1946, several medically sponsored prepayment plans had begun to use a Blue Shield symbol on their literature, the practice having originated in 1939 with Western New York Medical Plan in Buffalo, New York. Having secured permission from 18 plans already utilizing the insignia, the AMCP Commission adopted Blue Shield as the official service mark for its 48 member plans.

Blue Shield, in name and symbol design, has been filed for registration with the U. S. Patent Office under the revised federal statutes, permitting a service mark for intangible services to be protected.

"We hope that Blue Shield will gain the same widespread public acceptance, identifying the prepayment programs sponsored by the medical profession, as Blue Cross has achieved in the hospital field," stated Frank E. Smith, director of AMCP.

The adoption of Blue Shield will not replace the Seal of Acceptance of the AMA, awarded by the Council on Medical Service to prepayment plans which have complied with established minimum standards. The AMA approval program will continue, without reference to the fact that a prepayment plan under consideration for approval may be known as a Blue Shield plan.

Before AMCP accepts a prepayment plan as a full member, entitling that plan to use the Blue Shield insignia, the AMA minimum standards must be fulfilled, the AMCP Commission reserving the right to pass judgment on such fulfillment in the absence of a previous decision by the AMA Council on Medical Service.

In effect, all Blue Shield plans comply with the AMA standards of approval. If the Seal of Acceptance has not been granted to an individual plan, explanation lies in the fact that application for such approval has not been submitted. Several plans fall within this category.

On the other hand, a few prepayment plans, having been awarded the Seal of Acceptance, have not made application for AMCP membership.

The easiest way to distinguish the two symbolisms is to remember that the Seal of Acceptance, granted by the AMA Council on Medical Service, indicates AMA approval. Blue Shield is a promotional device adopted by AMCP and its member plans, all of whom follow the non-profit principle of operation.

Whether referred to over the radio, in advertising copy, or news releases, Blue Shield provides an easily recognizable verbal and visual means of identifying the nation's non-profit plans for prepaying the costs of medical care.

On January 1, 1948, the non-profit plans recorded a total enrollment in excess of 7,000,000 persons.

Army Syphilis Records Available

The syphilis records of Army personnel who were treated for this disease while in active service are now on file with the Veterans Administration, and information from those records can be made available to private physicians, according to an announcement recently released by Dr. Paul B. Magnuson, chief medical director of the VA. The text of his announcement follows:

"The Veterans Administration has in its custody the majority of syphilis records of those Army personnel who were treated for this disease while in active service, and in many instances can procure informative data from the syphilis records of other than Army personnel. It is thought that many physicians treating veterans for syphilis as private patients would find a resume of the syphilis record useful since the details of treatment, results of spinal fluid examinations, and blood serologies are incorporated in the records.

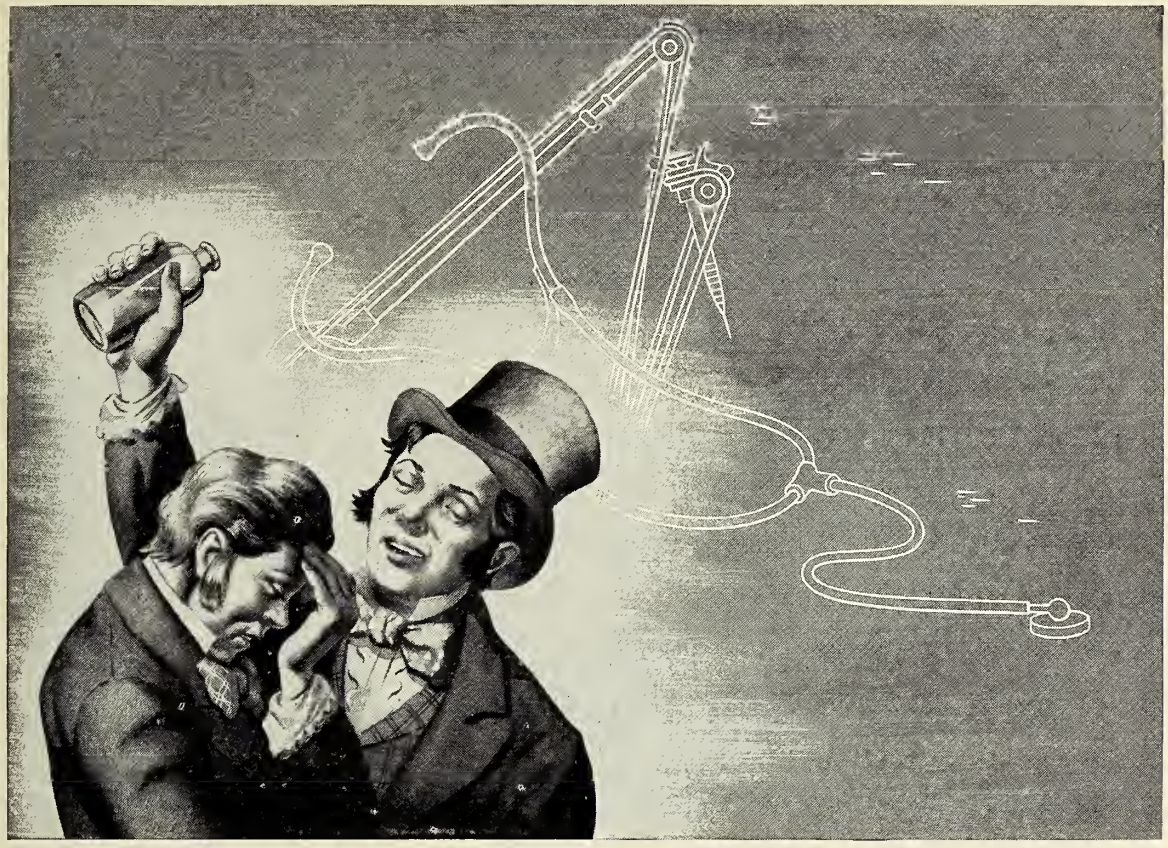
"Resumes of these records are available to physicians who are treating such veterans provided authorization for the release of the data is given by the veteran. Requests for the resumes accompanied by an authorization for the release of the data, dated and signed by the veteran, should be addressed to the Dermatology and Syphilology Section, Veterans Administration, Munitions Building, Washington 25, D. C. It is most important that the veteran's service serial number and other identifying information, such as the date of enlistment, the date of discharge, rank, and organization be included.

"Ordinarily, the resumes can be furnished in approximately two weeks from the date of the receipt of the request and signed authorization."

Two Blue Shield Plans Pass 700,000 Members

With the release of 1947 enrollment reports, AMCP announced that two Blue Shield plans had passed the 700,000 mark in enrollment. United Medical Service in New York City reported a total enrollment on December 31, 1947 of 729,794 persons, while Massachusetts Medical Service reported, as of the same date, an enrollment of 725,519.

Michigan Medical Service still tops the list with 935,531 persons enrolled.



The First Anesthesia . . .

Medicine and Dentistry thank Crawford W. Long (1815-1878), a Georgia physician, and Horace Wells (1815-1848), a dentist, for their pioneer work in the development of modern general anesthesia.

In 1842 Long observed the effects of commonplace "ether jags" upon the younger set—the boys who "imbibed" too heavily often injured themselves by stumbling over chairs and bumping against sharp obstructions; but, remarkably, they never seemed to experience *pain*. Long gave ether to a tumor patient . . . operated successfully . . . and painlessly. Then, in 1844, Wells followed with history-making proof of the value to surgery of *nitrous oxide*.

Long and Wells—and Morton and Jackson, two other famed figures in the early development of ether and "laughing gas" as general anesthetics—had to work *without protection* . . . without defense against allegations of malpractice.

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American Heart Association Meets

The 24th annual meeting of the American Heart Association was held last month in Chicago and plans were made for the formation of new local heart associations and the broadening of research to accelerate the nationwide campaign against diseases of the heart and circulation.

Dr. Arlie R. Barnes, president of the association, reported that approximately three billion dollars was raised through public solicitation in the organization's first appeal for funds. As a result of this support, local heart associations will be able to increase their services to the community, and additional associations will be organized to bring the benefits of education and research within the reach of more individuals throughout the country. New research programs will be stimulated.

The following amendment to the certificate of incorporation was proposed to restate the objectives of the American Heart Association: "The purposes for which it is formed are the study of and acquisition, dissemination and application of knowledge concerning the normal heart and circulation, and the causes, diagnosis, prevention, and treatment of disorders of the circulation and diseases of the heart, blood vessels and lymph vessels; the development and application of measures that will prevent such disorders and diseases; the gathering and publication of information upon all aspects of such disorders and diseases, including studies of occupations suitable for patients with diseases or disorders of the heart or circulation; the encouragement of the establishment of special dispensary facilities for patients with such diseases, and of facilities for adequate convalescent care of such patients, and the promotion of permanent institutional care for such of them as are hopelessly incapacitated for self-support; and the encouragement, establishment and assistance of local associations and committees with similar purposes, or one or more thereof, in such cities, states or regions as the Board of Directors shall determine, throughout the United States and Canada. Nothing herein contained shall authorize the corporation to establish or maintain any hospital, infirmary, dispensary, clinic, home or institution for convalescent or invalid persons or a hospital service or medical expense or other indemnity plan."

Statistics on Surgery

Boys incur 15 per cent more surgical operations than girls, with 60 per cent of all children's operations being tonsillectomies and 20 per cent appendectomies or fractures, according to an analysis of 100,000 surgical benefit claims of all ages made by a committee of the Actuarial Society of America and presented at the annual meeting of the Society in New York in May. This was one of a long list of findings from the study which covered group surgical insurance claims reported by companies doing 70 per cent of this type of insurance and covering a period of eight months of last year.

Group surgical insurance, first written in 1938, has become an important segment of the insurance business and covers 10,000,000 persons, the report stated. This is in addition to protection on an additional 10,000,000 covered by Blue Cross, individual contracts and other plans.

Eight types of operation were found to account for the greater part of all surgical benefit claims: tonsillectomy, appendectomy, benign tumor or cyst, hemorrhoidectomy, fracture, hysterectomy, herniotomy and dilatation or curettage. These accounted for 60 per cent of all claims, 57 per cent of the male cases and 67 per cent of the female cases.

Multiple operations take place in a large number of cases, taking advantage of the urgency of the major cause. In 17 per cent of all cases, more than one operation was performed under the one procedure. In the case of claims for wives, 31 per cent were multiple; for female employees, 24 per cent; for male employees, 15 per cent, and for children, five per cent. In gynecologic surgery, a maximum of 51 per cent was shown. On the average, multiple operation claims were for amounts almost double those for single operations.

More complicated surgery was incurred at ages over 50 in the case of men. For women, the operations were generally more serious than for men at all ages, but the severity changed little with age, except for a slight peak in late child-bearing or post child-bearing years.

Analysis of surgical fees in the cases covered showed that charges were highest on the west coast, with California showing the highest cost of any state. There the charges were 39 per cent greater than the U. S. average in non-obstetrical cases and 61 per cent over average in obstetrical. In the middle Atlantic states, next highest, the charges were three and five per cent higher than average, respectively.

Winthrop-Stearns Markets Infant Food

Winthrop-Stearns, Inc., pharmaceutical manufacturers, announced recently that they would enter the infant food preparation field with the marketing of Cartose, a refined carbohydrate. The product was originally introduced by H. W. Kinney and Sons, Inc.

Cartose is a fluid mixture of dextrose-maltose-dextrose which is obtained by the hydrolysis of cornstarch, and it is accepted by the Council on Foods and Nutrition of the A.M.A. It is distributed in pint glass sealed containers and is sold through retail drug stores, largely on prescription by physicians.

Maternal Mortality Figures

The risk of dying during childbirth decreased during 1946, according to figures of the National Office of Vital Statistics released this month. In that year, 5,153 women died in the United States from causes related to pregnancy and childbirth, representing a maternal mortality rate of 1.6 deaths per 1,000 live births. In Kansas, 60 mothers died for a rate of 1.5 per 1,000 live births. The national mortality rate has been declining steadily, beginning with 1930.

The maternal mortality rate in rural areas (under 2,500 population) has exceeded the rate for urban areas by at least nine per cent in each year from 1940 to 1946. In 1946, the rate for rural residents was 1.7, or 13 per cent higher than the rate of 1.5 for urban residents.

Senile Diagnoses Questioned

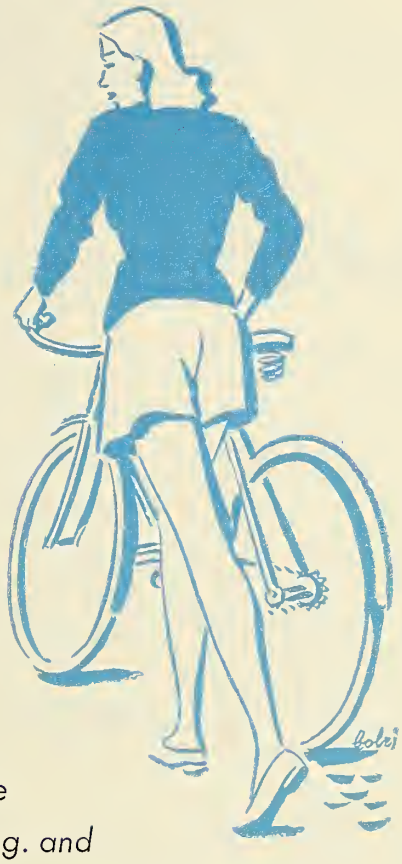
The diagnosis of senile diseases was questioned by Dr. C. Charles Burlingame, psychiatrist-in-chief of the Institute of Living, when he made his annual report to the Institute's board of directors.

Pointing out that a disease must be identified to be treated, he objected to use of the words, "senile diseases." "Of course there is no such thing as a senile disease any more than there is a childhood disease," he said. "To use the ages of man as a diagnosis is indulging in intellectual laziness. During the sixth and seventh ages of man he may be subject to certain diseases, but senility or senile dementia is not a diagnosis; it is a chronological statement."

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ABSTRACTS

Periphlebitis Retinalis

Periphlebitis Retinalis Associated with Intracranial Manifestations. Viers, Everett R., Am. Jnl. Oph., February, 1948.

Periphlebitis retinae is a special form of retinal inflammation in which the retinal veins and tissues surrounding them are involved. It occurs most frequently in young adults who harbor foci of latent tuberculosis. Although some authors think that the condition is always the result of tuberculosis, there are others who believe that other forms of chronic infection are sometimes responsible. The ophthalmoscopic appearance is spectacular: markedly dilated and tortuous veins; sheathing may be very prominent; portions of the vessels may be obscured by retinal oede, hemorrhages and exudates are numerous, usually widely scattered. Vitreous hemorrhages may occur. Some authorities have suggested thrombophlebitis as a better descriptive word.

The author presents three cases in which severe periphlebitis of the retina was associated with severe headaches and other signs of possible intracranial disease. Symptoms suggestive of intracranial disease were: thickness of speech, deviation of the protruded tongue, weakness of facial muscles; loss of ability to speak and to swallow, severe persistent headache. In none of the cases was a focus of tuberculosis found.

The simultaneous occurrence of intracranial lesions and periphlebitis of the retinas does not prove a common etiology; but with inflammation as widespread and as severe as it is in many cases of periphlebitis retinalis, it would seem logical that the process would not end abruptly at the lamina cribrosa or the optic foramina. The series is entirely too small for definite conclusions, but the findings were sufficient to suggest a common etiology between periphlebitis retinae and some intracranial disease.—*W.B.G.*

* * *

Multiple Myeloma

Multiple Myeloma: A Review of 83 Proven Cases. Bayrd, Edwin D., and Heck, Frank J. J.A.M.A., 133:247 (Jan. 18) 1947.

Bence Jones protein was discovered 1845 and was reported 1850. It is now known to occur in multiple myeloma, metastatic carcinoma of the bone, multiple sarcoma of the bone, senile osteomalacia, fibrocystic disease, comminuted fracture, tumor of the jaws, lymphatic leukemia, myelagenous leukemia and polycythemia. In 1873 multiple myeloma and Bence Jones proteinuria were associated. Now it is known the reaction for Bence-Jones protein is positive in little over half the proven cases of multiple myeloma.

In 1928 Geschickter and Copeland reported from the literature plus 13 of their own cases of multiple myeloma, a total of 425 cases.

The present paper deals with 83 cases that have been seen at the Mayo Clinic (through December 1945). Clinical manifestations and percentage of cases showing these manifestations are discussed.

Pain in 86 per cent of cases was the outstanding feature and frequently the sole complaint. Thorax and lumbar spine was the commonest location. The pain is progressive with daily and weekly variations, aggravated by exertion, coughing, sneezing and eased by rest. Remission of pain was rare and trauma usually reinduced it. Night pain was rare since rest eased the pain. With the pain occasionally was found exquisite superficial tenderness.

After pain the authors discussed with percentage incidence other important findings: 78 per cent had multiple bone lesions; 73 per cent had elevated serum protein (especially globulin was increased); 61 per cent showed evidence of renal dysfunction (in some cases uremia is the terminal event); 59 per cent had excessive Rouleaux formation; 53 per cent had anemia (11 gm. or less Hbg); 53 per cent Bence-Jones proteinuria; 41 per cent myeloid immaturity in marrow smears; 26 per cent had evidence of osteoporosis; 20 per cent hypercalcemia; 16 per cent pathologic fracture; 14 per cent paraplegia and root pain; 12 per cent tumor formation; 12 per cent osseous abnormality by roentgenography; 10 per cent myeloma cells in peripheral blood; 7 per cent epistaxis.

The average age of the patients was 57 years with a span of 20 years on either side, and men outnumbered women 3:1.

The sedimentation rate is usually greatly increased especially if serum protein is high or if rouleaux formation is increased. Leukocyte counts were usually under 10,000 and often under 5,000, though cases are reported with very high white cell counts. Myeloid immaturity was observed in blood smears in over ⅔ of cases in one series where smears were studied. Blood calcium usually is elevated, serum phosphorus is normal or slightly elevated, and alkaline phosphatase is normal or somewhat increased. Single myelomas probably seldom exist.

The diagnosis is based on the clinical features and among the laboratory aspects Bence Jones proteinuria and hyperproteinemia. The most important and pathognomonic finding is myeloma cells in sternal marrow smears.

The prognosis is grave. From the onset of symptoms death occurred in from one month to 84 months; the mean was 15 months. There is no treatment (radioactive isotopes, Coley's toxin, roentgen therapy and calcium have been tried).

* * *

Unipolar Lead Electrocardiography

Unipolar Lead Electrocardiography Including Standard Leads, Unipolar Extremity Leads and Multiple Unipolar Precordial Leads. Goldberger, Emanuel. Lea and Febiger, Philadelphia, 1947.

In the preface the author states that the material to be presented is the result of his studies of unipolar leads from the aspects of their practicability for routine clinical use and their relationship to standard leads and precordial leads and unipolar leads in general. He thereby implies, and the text verifies, that this is a review of electrocardiography with particular emphasis on unipolar leads after the author's simplified technic (augmented unipolar leads).

It is refreshing to see a monograph on the subject that Dr. F. N. Wilson began discussing some years before but on which he has never written a book. Frequent acknowledgement of Wilson's pioneer studies can be recognized when comparisons are made. Dr. Goldberger's studies led him to develop a simple indifferent pole and to use procedures for making so-called augmented unipolar leads (in contrast to Wilson's indifferent electrode and unipolar leads), and the book adequately presents the simple technics. Inasmuch as rhythm disturbances based on automaticity disorders are no better demonstrated by unipolar studies, those abnormalities are not discussed, though bundle branch block is discussed. The effects of the heart's

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position are discussed under headings: (1) rotation around the antero-posterior axis of the heart, (2) rotation around the long axis of the heart, (3) backward or forward rotation of the apex around the transverse axis of the heart.

It is pointed out that x-ray studies are as yet inadequate to indicate the degree of rotation in the fashions menioned. The statement is made that correlation of the electrocardiographic patterns with the position of the heart is difficult and there are no criteria to accurately describe rotation around any of the axes.

Despite this statement, reference is made to the work of many contributors who have written on the electrocardiographic findings in hearts rotated around all three axes. To determine the position of the heart from an electrocardiographic point of view the following rule is presented: "Since the basic patterns of unipolar leads near the surfaces of the heart are known, one can assume, when similar patterns are found in any of the unipolar extremity leads, that such an extremity faces a particular surface of the heart." Myocardial infarction, new, old, and multiple, is adequately covered. The value of unipolar extremity leads in differentiating pulmonary embolism and posterior myocardial infarction is demonstrated.

The author makes the healthy statement that "the electrocardiogram is only one of the many methods that are used in clinical diagnosis," after having stated the axiom that "a normal electrocardiogram does not necessarily indicate that the patient does not have heart disease." Certainly these warnings are proper, at a time when production is allowing commercial firms more instruments than there are men who can use them.

In general this is a contribution to the monograph literature, because the author's reasoning employs as its basis what the unipolar limb leads and precordial leads show. The author speaks authoritatively and makes free use of deflection lead identification symbols such as qRs and qRS to indicate prominence of certain waves. Also such designations as Q L Arm are used to identify waves in augmented unipolar limb leads.

The next edition will no doubt clarify some of the text which makes the reader at times confused. All legends are not as understandable as they might be and in some instances the figure and legend are not referred to in the text for several pages. In some of the case presentations the abnormalities referred to appear questionably significant (example: reference is made Q in V_5—when it is obvious such is not present).

These criticisms are minor and are more than compensated by the enthusiastic repeated, almost promotional emphasis placed on unipolar leads. The book should be an adjunct to a library of several more comprehensive works on the subject.

* * *

Carcinoma of the Colon and Rectum

Prognosis in Carcinoma of the Colon and Rectum. Colcock, Bentley P. Surg., Gyn. and Obs., 85:8-13 (July) 1947.

This is a ten-year follow-up study of 337 patients treated at the Lahey Clinic prior to 1936. The study is divided into: (a) carcinoma of the colon from cecum to include the upper sigmoid (i.e., resection with restoration of continuity); (b) carcinoma involving lower sigmoid and rectum (i.e., some form of abdomino-perineal resection with permanent colostomy.)

Each group is further subdivided into (1) lesions apparently confined to primary tumor, and (2) those in which spread of the malignancy beyond the primary tumor had occurred. The findings may be summarized as follows:

Prior to 1936	*Colon*	*Recto-sigmoid*
No. of patients	103	234
Male	47	129
Female	56	105
Ages	27-74	21-75
Average Age	57	57
Percentage resected prior to 1936	78.6%	62%
(Operative deaths)	16%	7.5%
(In 1945—Percentage resected)	90%	83%
(Operative deaths)	2.3%	about 5%
Living and well without evidence of recurrent malignancy		
(1) No spread of tumor found at operation		
After 5 years	64.3%	60%
After 10 years	57.1%	51.6%
(2) Those with spread of malignancy found at operation		
After 5 years	15%	30.2%
After 10 years	10%	23.2%

Note: Of patients surviving five years and dying before 10 years, most died by 6½ years. (After 10 years recurrence of carcinoma may be expected to be quite uncommon.)

Conclusion: The figures suggest that more than 50 per cent of the patients without evident spread of the malignancy at the primary operation, who survive that operation, may expect a permanent "cure" from radical surgery.—*T.P.B.*

Study Blue Shield Problems

A study of Blue Shield statistics on a nation wide basis has been begun by Associated Medical Care Plans, according to information recently released by the headquarters office, to analyze the services for which payment has been made and to show the relationship of those disbursements to the plan's earned income, operating expense and reserves.

Preliminary studies indicate a need for standard nomenclature among Blue Shield plans. Current fee schedules and the listing of surgical and medical procedures are not uniform, and surgical procedures are not always indicated by identical terminology. In addition, groupings of procedures are frequently different. So that incidence and cost of services rendered may be tabulated accurately, it will be necessary for each plan to employ the same terminology in its reporting. The first step to be achieved, therefore, is national agreement on uniform nomenclature.

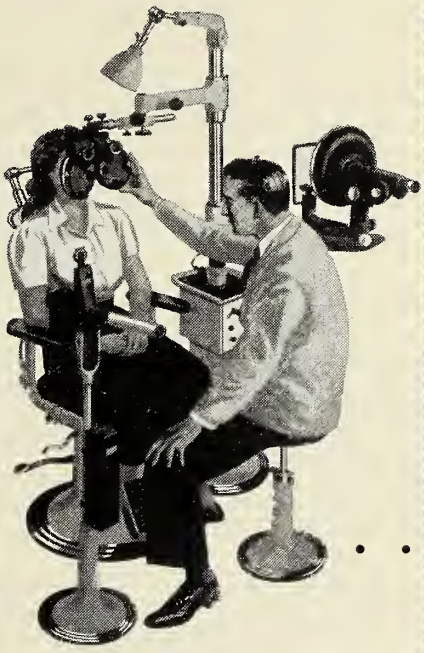
Assuming that uniformity in reporting was achieved, individual plans could begin to submit a limited type of statistical report for tabulation, stating the services rendered, amount of payment and incurred date of payment. That experience would ultimately be measured in terms of the total exposure, which consists of a plan's type and total amount of membership during the period examined.

Agreement on uniform nomenclature and coding procedures will require a careful study of current practices, detailed discussion with local plans and hours of conferences. Agreement implies changes in local methods of plan operation before conformity to national requirements can be obtained.

National experience tables will finally be used by local Blue Shield plans to test the adequacy of subscription rates, to make contract adjustments and to measure expansion of benefits and entry into new fields of underwriting.

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BOOK REVIEWS

Sexual Behavior in the Human Male. By Alfred C. Kinsey, Wardell B. Pomeroy and Clyde E. Martin. Published by W. B. Saunders Company, Philadelphia. 804 pages.

In spite of both the enthusiastic and critical fanfare associated with this book, this reviewer finds it a disappointment as far as shedding any fundamentally new light upon human sexual behavior is concerned. It is understandable why so much praise and abuse have been heaped upon this report, but there have been several critical estimations in various journals which pay objective service to the authors and the public.

The foreword by Dr. Alan Gregg of the Rockefeller Foundation, who sponsored the project, is the most eloquent passage about the need for large scale studies of sexual behavior. However, as one reads of the details of the undertaking, the enormous amount of work necessary, the time, patience and zeal displayed, it is pathetic and disappointing to see the unfinished and untouched areas of such a field come to light. This is so, in spite of the admirable and determined spirit shown by the authors in preparing laborious and numerous tabulations, rating scales, and statistical groupings on an economic, social and religious basis.

It is regrettable that this project was launched without more active participation of scientists with somewhat different orientation, background, training and philosophy. It has been true so far that social studies carried out by a select group have not been as rewarding as expected. This was true of the Western Electric experiment utilizing only clinical psychologists. This project could have been more comprehensive if others besides a zoologist, clinical psychologist and statistician were included. This reviewer wishes that sociologists, cultural anthropologists, psychiatrists, psychoanalysts and psychiatric social workers could also have been active in the survey.

Fundamentally, it is doubtful how valid the data are when obtained by the "rapid fire question and answer" method and by "looking the subject square in the eye," even though investigators and detectives find the method useful. It is possible that some data were reliably obtained by this method, but the question arises as to how much the real facts were colored by concealment, boasting, distortion, shame, and simply repression of memories. It is possible there was some boasting and exaggeration from some types of personalities. However, to those who have worked with the people clinically, it is not surprising to know that the great majority of people keep both minor and major portions of their sexual life secret even under the most favorable and confidential circumstances. Detailed psychiatric studies, various forms of psychotherapy—employing both psychoanalysis and hypnosis—frequently reveal facts that are previously denied or distorted by initial interviews.

There are numerous direct, indirect and oblique references to psychiatric and psychoanalytic data and theories on sexual behavior. Most of these references bear depreciatory, naive and flippant implications to clinical observations. It is interesting that the authors are so defensive and yet cocksure of their formulations. On Page 37, the authors state no recognizable psychotics were acceptable "who were handicapped with poor memories, hallucinations, or fantasies that distorted the facts." This reviewer alleges that there are many "ambulatory" psychotics who are not detectable by the above and similar criteria, and even so that distortion of facts, especially sexual facts, is not limited to "psychotics." There are numerous glib and almost naive references to the "altruism" of the subjects interviewed, the importance of the taxonomic method, the ingenuity and integrity of the workers in establishing rapport and in keeping records confidential.

Evidently the authors do not believe in either the theory or fact that there is an unconscious mental life or that repression really produces various denials and distortions of fact, especially with regard to the sexual instinct. Indications of this are numerous throughout the book. On Page 238, with regard to impotence and fondling of children by old men, there are bland and altruistic formulations. On Page 497 the universality of masturbation is blandly explained away and strictly limited to "voluntary" and "deliberate" actions. On Page 580 there are notable rationalizations and justifications of various forms of premature ejaculation and ejaculatory impotence, implying the problem is exaggerated by "female unresponsiveness" and making unwarranted comparisons to lower animals.

Also, it is alleged that there are many people of both sexes who simply have obscure constitutional "low sexual drive," and that clinicians waste much time and effort in trying to treat many cases of impotence and frigidity. This is another example of disregard for both repressive and regressive phenomena.

There are numerous formulations that may indicate valid trends in social, economic and religious groups. However, this reviewer doubts if the findings of this volume really surprise any person who has really had clinical experience with people employing the techniques of dynamic psychiatry. The deductions reached, however, are probably very surprising.

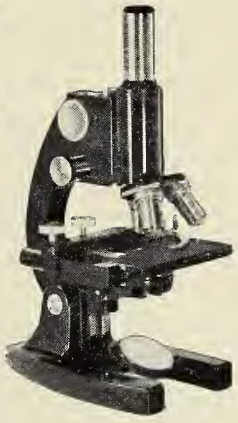
The main defect and tragedy in this survey is the lack of intensive study of the life situation of the subjects interviewed. Early childhood histories and influences of parental and environmental attitudes would be very welcome. In short, the factors specifically contributory to unhealthy sexual attitudes and acts would be a real contribution. As the survey stands, we have a mass of conglomerate and largely unrelated data, which, even when reviewed later with similar studies of the human female, is still far from shedding light on the basic problems to be solved. It may be that many people are reassured by this survey, but it is doubtful if many people who need help with their sexual problems are really benefitted. Perhaps a more tolerant and understandable attitude may be evoked in the public, but there are probably many people who are alarmed by, indifferent to and essentially untouched by this work. The authors take the defensive attitude about prevalence of sexual deviations and equate this with normality or social acceptability.

As the survey stands, only a small and limited part of the population will pay any critical attention to it. The subject is far too complex to be readily assimilated by the average citizen. Some will read this data with avid curiosity; some will read it with alarm; some will use the data to condone their behavior; others to condemn sexual behavior that does not agree with conventional standards or their own ideas. At any rate, regardless of the praise or attack or indifference that this survey stimulated, until we know more about the complex subject of human sexuality, it is probable that sexual behavior in males and females will continue much the same.—*H.H.C.*

* * *

The Foot and Ankle, Their Injuries, Diseases, Deformities and Disabilities. By Philip Lewin, M.D., F.A.C.S.





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Line drawings by Harold Laufman, M.D., F.A.C.S. Published by Lea and Febiger, Philadelphia, 1947. 847 pages, 389 illustrations. Price $11.

In the third edition of this book the author has added considerably to the subject matter which already was quite comprehensive. It is an excellent book for reference on diseases, injuries, and disabilities of the foot and ankle and also describes some of the general disorders of the body that frequently are first manifested in disorders of the feet. It gives a discourse on frostbite, emersion foot, etc., which is not fully covered in previous books. However, in being so comprehensive, at times, the author quotes such a variety of operations that it is difficult to know which type of operation or treatment the author himself prefers.—*C.B.T.*

* * *

The Acute Bacterial Diseases, Their Diagnosis and Treatment. By Harry F. Dowling, M.D., F.A.C.P. Published by W. B. Saunders Company, Philadelphia. 465 pages, 55 figures. Price $6.50.

This book is well written and covers the field of acute bacterial diseases as to diagnosis, care and treatment. Various diagnostic procedures are discussed from the practical standpoint. Care of the patient with fever is considered in detail. Various therapeutic procedures are discussed, serum, sulfonamids, penicillin and streptomycin, their virtues, toxic effects, methods of administration, duration of effects, etc. Detail discussion is followed on most all ordinary bacterial infections, such as the various coccus infections, dysentary infections, tumaremia, brucellosis, diphtheria, influenza, etc.

This book can be recommended to the internist who is called upon to care for people with bacterial infections.—*J.L.L.*

* * *

Clinical Diagnosis by Laboratory Methods. A Working Manual of Clinical Pathology. 11th Edition. By James Campbell Todd, M.D., Arthur H. Sanford, M.D. Published by W. B. Saunders Company, Philadelphia. 954 pages, 397 figures. Price $7.50.

This edition is a complete volume covering almost every phase of laboratory technic. There are also many points of interpretation, making this a very valuable book for the physician. One chapter is devoted to the biological skin tests, such as histoplasmin, coccidiodin, trichinosis, echinococcosis, etc. The chapter on serological tests for syphilis covers the various approved tests including cardiolipin antigen. The chapter on hematology is very complete and covers such matters as bone marrow, the leukemias, the hemorrhagic diseases, Rh and blood groups, prothrombin, etc. The chapter on clinical chemistry covers the material on liver function tests, lipids, pancreatic enzymes, etc. The physician will find the chapter on mycology especially valuable.

The book can be recommended without reservation to the technician and the physician.—*J.L.L.*

* * *

Minor Surgery. By Frederick Christopher, M.D. Published by W. B. Saunders Company, Philadelphia. 1058 pages, 937 illustrations. Price $12.

In 1929 Christopher's "Minor Surgery" was first published and was immediately accepted as a classic and given a proper place in American medical literature. In the succeeding years this book has gone through five successful editions. This volume is the sixth. The present work has kept up the tradition of the previous editions and even gone further in that expansion deemed necessary to keep pace with recent developments in surgical therapy. The scope of the book is greater than "office surgery," and some of the included material might be rightfully considered "major" by some, but it is all put together in such a fine manner and is so well presented, that one can offer little but the highest praise for Dr. Christopher's last revision of his already fine book.—*O.R.C.*

* * *

Surgical Disorders of the Chest. By J. K. Donaldson, M.D., 2nd edition. Published by Lea and Febiger, Philadelphia. 485 pages, 146 illustrations. Price $8.50.

The last ten years have seen tremendous advances in all fields of surgery, but in none has there been such revolutionary change and expansion as in the field of thoracic surgery. This advance has made surgical treatment now an accepted and commonplace part of the management of some thoracic diseases formerly treated only palliatively by medical means. Such rapid changes have left too many of the general practitioners and general surgeons far behind the progress which has been made in this field. Because of this some patients are still receiving treatment which was correct even ten years ago, but is completely outmoded today.

In the hope of improving this situation and to make conveniently available to the medical profession at large the basic principles of thoracic surgery of today, this volume has been written. It is intended that it shall offer, "in compact and easily readable form, a reference work for physicians, surgeons and medical students; a book which stresses, insofar as practicalities permit, clinical pathology and diagnosis in correlation with treatment." It is not a book meant primarily for the trained thoracic surgeon.

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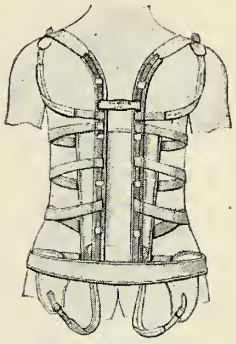
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Included is detailed description of the technic of numerous thoracic operations—some of which may be done by general surgeons who have informed themselves sufficiently of the basic features of chest psysiology and surgery, and some of which are procedures to be done only by thoracic surgeons. These latter technics are given only to acquaint the medical profession with what can be and is being done by the trained thoracic surgeons, in order that all physicians and surgeons may properly evaluate the available procedures and correlate them with their specific patients. The author hopes that by so doing he can decrease the number of patients with surgically remediable thoracic disease who are never advised that surgical procedures would be of any value.

This volume can well merit space in the library of any physician or surgeon who expects to see any patients with diseases of the thorax. Whether he is going to carry on the treatment himself or not, he owes it to his patients to know what can—and should—be done for them.—*O.R.C.*

* * *

Laboratory Manual of Microbiology for Nurses. By Elizabeth S. Gill, R.N., and James T. Culbertson, Ph.D. Published by G. P. Putnam's Sons, New York. 116 pages. Price $1.50.

While the material in this manual is not without value, it appears to this reviewer that the authors overshot their mark in writing it for the education of nurses. A portion of the book seems too technical and too specialized for those in the nursing field. However, it would be excellent elementary material for technicians, and for that use it can be recommended.—*A.A.F.*

Kansas Physicians' Service enjoyed a percentage increase of 265.5 in number of subscribers in the interval between December 31, 1946, and December 31, 1947, according to a report issued recently by the Council on Medical Service of the A.M.A. At the end of 1947, 53,204 subscribers were enrolled in K.P.S.

ANNOUNCEMENTS

September 7-11—26th Annual Scientific and Clinical Session, American Congress of Physical Medicine, Hotel Statler, Washington, D. C.

September 20-23—15th Anniversary Convention, American Hospital Association, Hotel Traymore, Atlantic City, New Jersey.

Sept. 20-23—Postgraduate Course in Metabolic Disorders, Dallas Southern Clinical Society, 433 Medical Arts Building, Dallas 1, Texas.

Sept. 23-25—16th Annual Meeting, Central Association of Obstetricians and Gynecologists, Shirley-Savoy Hotel, Denver, Colorado. For information write Dr. John I. Brewer, secretary, 24 West Ohio Street, Chicago 10, Illinois.

September 29-October 1—13th Annual Meeting, Mississippi Valley Medical Society, Springfield, Illinois.

October 4-7—26th Annual Fall Clinical Conference, Kansas City Southwest Clinical Society, Kansas City, Missouri.

Oct. 18-22—34th Clinical Congress, American College of Surgeons, Biltmore Hotel, Los Angeles, California.

Nov. 30-Dec. 3—Midwinter Meeting, A.M.A. House of Delegates St. Louis, Missouri.

March 28-April 1—30th Annual Session, American College of Physicians, New York, New York.

June 6-10—Annual Meeting American Medical Association, Atlantic City, New Jersey.

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Volume XLIX AUGUST, 1948 Number 8

MODERN SURGERY OF RETINAL DETACHMENT*

Samuel J. Meyer, M.D.
Chicago, Illinois

ETIOLOGY

The etiology of idiopathic detachment of the retina is in many cases confused, because the predisposing factors are combined. In the first place, there are two outstanding factors that favor the production of retinal detachment—myopia and trauma. Less marked predisposing factors are chorioretinitis of low degree, and senile degeneration of the retina. These four factors are the most important, and either isolated or associated with each other, play a part in almost all cases of retinal detachment.

Slides of an eye recently examined histologically by Vogt, in which the retinal detachment was only several weeks old reveal the fact that in fresh detachments there is no evidence of any inflammatory changes as postulated by Leber-Nordenson-Gonin. There are no evidences of any inflammatory hemorrhages or blood-clots, nor of any scar formation, nor of any strand formation, nor of any inflammation whatever as a cause of spontaneous retinal detachment.

Finally, other predisposing conditions in this disease include hepatorenal insufficiency, dyscrasias, psychic disorders, and ocular fatigue. The causes which may produce symptomatic detachment are tumors, cysticercus, albuminuric retinitis, orbital cellulitis, scleritis, etc.

Recurrences after successful retinal detachment operations are very frequent. The correct percentage is not known at present. Kleiner, Larsson, Vogt, Weve, and others have written about this. Gonin differentiates between recurrences which occur two to three weeks after surgical interference, and those which occur later. In the first cases, he believes that the original tear is not properly closed or sealed, or another tear has been missed or overlooked, or a tear may be present in an area which the ophthalmoscope cannot observe. In most of these recurrent cases, the cause probably lies in the great fragility of the retina, which tears in a new place as soon as the original tear is sealed down. The fragility of the retina is a very important factor. The operation then becomes a symptomatic treatment. One must not overstep the limitations offered by each individual case, otherwise surgery will be miscredited.

We close or seal through operations the end result of the causative factor or process of the retinal detachment, which rarefies or thins the retina and by this means can also lead to formation of tears, through which the vitreous enters behind the retina and results in detachment of the retina in a large proportion of the cases. There is, therefore, no reason why a case that has healed successfully after operation, should not develop a new hole or holes in the immediate vicinity of the healed area, where the retina has become pathologically thin or fragile, with a resultant recurrence of the retinal detachment. Following a recurrence, the surgeon should persuade the patient to have a second or third operation, as the rarefied or fragile retina is usually limited in extent and may be successfully sealed or closed up. If the second eye is functioning properly, it may be more difficult to persuade the patient to have further work done. If the second operation is unsuccessful, or a recurrence develops, it becomes even more difficult to secure the patient's consent for a third or even fourth surgical procedure.

The various types of detachment of the retina may be divided into the following groups:

Group 1: Idiopathic or simple detachments and those caused by direct trauma to the eye. These are all considered operable.

Group 2: Detachments due to strands in the vitreous which pull the normal retina from its base. These result from violent intraocular hemorrhages, perforating injuries, or massive vitreous hemorrhages. Occasionally they may be operated by special procedures.

Group 3: Detachments resulting from intraret-

*Presented at the annual meeting of the Kansas Medical Society, May 12-15, 1947, at Topeka, Kansas.

inal hemorrhages. These are rare, and may heal spontaneously.

Group 4: Detachments due to formation of so-called "pathological" subretinal fluid. These may occur in severe nephritis and toxemias of pregnancy. Surgical interference is contra-indicated, as healing may occur if the underlying systemic condition is cured.

Group 5: Detachments caused by neoplasms such as sarcoma of the choroid. Enucleation is indicated in such cases.

It can, therefore, be readily seen that our surgery is usually confined to cases of the first group. In the light of our present knowledge, such detachments are caused by the presence of one or more tears in the retina. This principle is well accepted.

In these cases, the retinal detachment tends to spread, due to normal rotation of the eyes. Therefore, as soon as a retinal detachment is discovered, the eyes should be put at rest, either by pin-hole spectacles or a binocular bandage. This helps to prevent further spread of the detachment.

In order to cure a retinal detachment, the hole or tear must be walled off from the rest of the fundus by a solid line of watertight choroidoretinal adhesions. The tear or hole is closed by causing this area of the retina to be incorporated in a choroidoretinal scar, the result of an artificially produced exudative choroiditis.

OPERATIVE METHODS FOR DETACHMENT OF THE RETINA

Gonin Thermopuncture Method. One, of course, must begin with Gonin's thermopuncture method which he so ably elaborated upon about twenty years ago. Gonin chose this method because of the simplicity of instrumentation. This method has many advantages, especially when it is possible to reach the tears without much difficulty and when they are of such a nature that they can be sealed with one thermopuncture. The scar, about four to five mm. in width, is a firm scar which glues down the retina, choroid, and sclera with one strong scar. The actual area cauterized does not spread, and for this reason is definitely superior to the Guist and Lindner chemical cauterization method, or even the diathermy current used by Larsson, Weve, and Safar.

The Operation. The location of the retinal tear having been accurately ascertained by one of several methods, and sketches made of the fundus picture, the eye is irrigated with oxycyanide of mercury, 1-10,000 solution, and anesthetized by the instillation of cocaine HCl, four per cent solution, or pontocaine one-half per cent solution, m j, at three minute intervals for four instillations. A retrobulbar or subconjunctival injection of novocain solution, two per cent, 1-1.5 cc. is made, and one to two drops of adrenalin solution 1-1,000 instilled to control bleeding. If pontocaine is used instead of cocaine, the cornea will remain clearer and ophthalmoscopic examination control becomes much easier. The conjunctiva over the area involved is incised parallel to and 10-12 mm. distant from the limbus and the conjunctival edges retracted with silk traction sutures or suitable retractors. The exact area in the sclera overlying the tear is carefully ascertained, usually with the aid of an Amsler or Macky Marker. The sclera is incised with a fine Graefe knife for a distance of 1-2 mm. in length. If much fluid is present, the knife is rotated to allow escape of same; if little fluid is present, only a small incision is made and the knife is not rotated. The cautery, which has been previously heated to a white incandescence, is now plunged through the incision to the depth of three or four mm. in such a way as to touch the retina. It is left in for only one or two seconds, never more. The conjunctiva is sutured with a single running loose suture, atropine sulphate Ung, one per cent, instilled and both eyes bandaged. The head of the patient is placed in such a position that the vitreous presses against the puncture hole.

The Galvanocautery Method. This method has been extensively used in place of the thermocautery. Fine electrodes, slightly bent at the end are used. Electrodes made with sharp points may be used to more easily pierce the sclera. Several punctures may be made before the eyeball softens, the sclera being perforated to a depth of two-three mm., the cautery point being kept in about three-four seconds. One drawback is the important fact that the heat varies.

The Lindner-Guist Chemical Cauterization Method. Both Lindner and Guist decided upon the use of potassium hydroxide after many poor results following the early successes with thermo galvanocautery methods.

After subconjunctival or retrobulbar anesthesia injections, the site of the tear is marked on the bare sclera, the area is surrounded with a series of scleral trephinings, using either a 1.5 or 1.75 mm. trephine. The trephining is done very gradually in layers. Not every trephine opening is touched with the caustic. The caustic is immediately neutralized with one-half per cent acetic acid. Lastly, the choroid is perforated with a sharp canaliculus dilator.

The complications consist of piercing the choroid and allowing subretinal fluid to escape, and hemorrhage from an injured vortex vein or choroid.

However, large surfaces can be cauterized, especially necessary when treating large disinsertions. The main disadvantages consist of the requirement of an exact technic of the trephining, the consummation of much time, and hemorrhage from the choroidal vessels.

Linder used a so-called undermining technic for holes in the macula. The idea is an excellent one, but the technic necessary is much involved.

DIATHERMY OR ELECTROCOAGULATION

This consists of two methods, viz:—

1. Surface coagulation with blunt electrodes.
2. Electropunctures producing coagulation in the choroid.

Surface coagulation was given impetus by the reports from Larsson's Clinic in Stockholm. He aimed at coagulating a large portion of the choroid, which produced an extensive retino-choroiditis with resultant closing of the tear. While an accurate localization of the tear is not so necessary with this method, Weve insisted that the electro-coagulations be placed directly over the region of the tear. A ball electrode, two mm. in diameter is held lightly against the sclera for three seconds, the applications being kept at a distance of two-three mm. apart. A trephine opening or two is made in the coagulated area, the choroid perforated with a sharp scissors point, and the subretinal fluid is allowed to escape. The complications are few, except for a definite lowering of the tension.

The strength of current used is 30-40 m.a. Weve used a three-four mm. electrode with a 100-150 m.a. as a rule, the time being two-three seconds for each application.

Weve Technic. Weve later changed from surface coagulation to the electropuncture method. Weve uses fine needles 0.2 mm. thick and ranging from 0.75 to 1.5 mm. in length. "Brushes" containing four-five such needles may also be used. The current used is 30 m.a. Longer needles three mm. in length may first be used to assist in locating the tear. These punctures result in a white spot on the retina, about ⅓ D.D. in diameter, and are observed ophthalmoscopically. Then follows either the surface coagulation, the multiple puncture method or a combination of both. A white, flat scar results in the region of the tear. The scar is similar in appearance to the thermo-puncture method of Gonin. It obliterates the tear and seals the retina down, and does not usually cause the formation of retinal folds and subsequently secondary tears.

The micropuncture method is now universally practiced all over the world. The coagulation points have been varied by different operators, such as the Safar pins, Walker pins, Gradle electrode, Pischel pins, etc. The essential end result is practically the same. The Walker pins require a moderately involved technic, while the Gradle electrode is much simpler to use.

THE ELECTROLYTIC METHOD OF TREATMENT OF DETACHMENT OF THE RETINA

Catholysis. Electrolysis was first attempted in the surgical treatment of retinal detachment towards the end of the 19th century. It has recently been revived by Vogt and Imre, who have termed it catholysis. The main difference between this therapeutic procedure in those days and now is the importance of the accurate localization of retinal tears with the object of closing them through a barrage of choroido-retinal lesions induced asceptically by chemical caustics or through the medium of such physical agents as heat and electricity.

The therapeutic principle of catholysis is to effect reaction through the liberation of sodium and hydroxyl ions at the point of the negative terminal which is inserted through the sclera into the choroid.

The technic is similar to that described for diathermy. The negative electrode consists of platinum-iridium needles one, 1.5 or two mm. in length, depending upon what part of the eyeball they are to be used. The positive electrode is attached either to an Arruga retractor or to the patient's limb. Bubbles of hydrogen gas are liberated at the tip of the needle in the choroid. The current may vary from 1.75 m.a. to three m.a., and is held in contact for three-four seconds.

The first puncture in the sclera is made as near as possible two mm. behind the site where the retinal tear is judged to be and the fundus is examined immediately after this. Bubbles of hydrogen gas are seen at the point of perforation of the electrode and these serve for intraocular localization of the relation of the puncture to the retinal tear. The needle is inserted at intervals of 0.5 mm. over this area as the scars produced by this method of treatment are small and do not appear to be more than 0.5 or 0.75 mm. in diameter on ophthalmoscopic examination. Where the retina is shallow and at the macular and posterior pole of the eye, a grayish-white, fluffy edged cloud is readily seen at the point of the needle in addition to the bubbles. Surface coagulation with diathermy may be made to surround this area. The sclera is trephined as usual over this area or over the area where the fluid is most dependent. The choroid is punctured with a punctum dilator and the subretinal fluid is evacuated.

In favor of catholysis is the precision with which its effect on ocular tissues is circumscribed. There is no extensive spread of the current and on this account no damage is inflicted on other intraocular structures remote from the area of operation. After catholysis there are usually not seen any complications such as cyclitis, iritis, cataract, and optic neuritis, which follow in some cases in retinal detachment treated by any one of the surgical diathermy procedures.

In the author's opinion, the best type of operation for retinal detachment at present is one which combines partially penetrating coagulation with perfo-

rating diathermy and incorporates frequent inspections of the fundus during the operation. The operation is usually done by placing perforating pins such as Walker's or Pischel's pins directly over the area of the tear and making frequent inspections with a direct or indirect ophthalmoscope in a darkened operating room. If the grayish areas produced by the diathermy current are seen to be located in the area of the tear, several more pins are inserted in the same region. This area is then barraged with partial penetrating electrocoagulation pins such as Kronfeld's, Meyer's or Gradle's. Flat diathermy coagulation may be applied around the area of the tear in lieu of the partial penetrating pins. Repeated fundus examinations are made to observe the thoroughness of the coagulations. This necessitates frequent instillations of saline solution on the cornea. After the penetrating pins are removed at the end of the operation, sufficient drainage of subretinal fluid should occur to allow the retina to fall back onto the choroid. If this does not occur, then a larger 0.5-1 mm. perforating electrode is inserted in a dependent portion of the eye to allow for better drainage. If the eye has not become too soft, a trephine opening through the sclera may be made and the choroid perforated with a blunt pointed canaliculus probe. With this combined method performed under direct observation, a much larger percentage of cures can be obtained.

In cases where a shrinking of the retina has occurred due to agglutination of a fold or folds, vitreous hemorrhages resulting in a retinitis proliferans, perforating injuries, etc., a modification of Müller's scleral resection operation is indicated. It consists of the excision of a two to six mm. wide by 12 to 16 mm. long crescentic piece of sclera over the region of the tear or the most dependent part of the detachment. The first scleral incision is made 9-12 mm. from the limbus and the second incision two-six mm. distal to same. The cut scleral edges are resutured with multiple chromic catgut sutures. The operation is time consuming, somewhat difficult to perform, and occasionally may be accompanied by loss of vitreous and severe hemorrhage, if the choroid is injured. However, enough cases resulting in improvement have been observed to warrant such drastic surgery where definite indications are present.

SKIN CANCER

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Cancer of the skin is not only one of the most common malignancies encountered but also one of the most accessible. It occurs on areas where its presence is early brought to the attention of the patient. These factors, associated with its high rate of curability, make this cancer a singularly satisfactory one to treat.

The literature in this field is voluminous. It is not the purpose of this paper to add anything new, but rather to review our approach to the problem and to evaluate our results in the light of those obtained by others. Only in this way can one be sure that he is giving his patient the best that medical science has to offer.

MATERIAL

The therapy and results presented herein are based on a study of 358 cases treated by the senior author at the University of Kansas Hospital from 1933 through 1945. The pathology in each case was proved by biopsy. There were 221 other cases treated without biopsy either because the patient refused or because of the absence of help during the war years. These cases will not be included because the approach here is largely statistical.

The cases presented are selected. Only squamous cell, basal cell and mixed type epitheliomas are included. Melanomas and metastatic skin lesions belong in another group both pathologically and clinically. We have not included cases of squamous cell carcinoma of the lower lip feeling that they also should be analyzed separately because of their characteristic metastases.

BIOPSY

We feel it is relatively easy to make the clinical diagnosis of an epithelioma but to make a histological diagnosis of its cell type simply from observation is usually impossible. Daland[8] felt it unwise to biopsy skin cancers unless he thought there was considerable doubt as to its cell type. Others[34, 11, 30] however are of the opinion that the clinical differentiation between the two is unreliable. We have felt as Bogart[2] and Ullman[40] that biopsy is necessary for accurate diagnosis, but that in any event the initial treatment should be the same. Boggs[3] states that the squamous cell type requires two to four

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times more irradiation than the basal cell type. We believe that the subsequent possible overtreatment we may give a basal cell lesion is justified by the occasional case which on first biopsy is a basal cell epithelioma and then on subsequent biopsy after metastasis has occurred is shown to contain some areas of prickle cell elements which gave rise to the extension. We believe the two outstanding indications for biopsy are:

1. The possibility of metastasis in squamous cell cancer.
2. Protection in case of a lawsuit for radiation necrosis or telangiectasis.

We do our biopsies under local anesthesia taking the tissue from the edge of the lesion including a margin of normal skin. In the small epitheliomas we remove the entire lesion as the biopsy. We have not seen any ill effects from biopsy to contraindicate the procedure. As indicated above one should follow a case of squamous cell epithelioma closely with special attention to the regional nodes. The prognosis of the squamous cell type is not as good as that of the basal cell type. (See Table No. 4)

ETIOLOGY

The etiology of skin cancer appears to be largely that of some form of chronic irritation such as contact with coal tar products, actinic rays, inclemencies of the weather and uncleanliness[5]. In an ingenuous study devised to show the effect of excessive exposure to actinic rays Elliott[13] shows that there is a higher incidence of skin cancer in the southern states. In Fort Worth and Dallas 46 per cent of all cancer is primary in the skin while in Chicago 12.5 per cent is primary in the skin. We have been impressed by the number of skin cancers in the blond men from the wheat fields of Kansas. There seems little doubt but that actinic rays are an important factor but, needless to say, there are others.

PATHOLOGY

The basal cell carcinoma is described[5] as a waxy, elevated indurated nodule becoming "pearly" on the border and crusted in the center as it extends with a rolled undulant edge. They may or may not ulcerate. Some are solid or cystic while others are superficially expansive showing epithelialization in the center. Removal of the crust reveals a grayish base with oozing or bleeding. Although they may be divided into clinical types Hazen[17] feels that they all respond the same to therapy except the deeply infiltrating types. Foot[15] describes the histological picture of basal cell epithelioma as being composed of nests of cells connected with the overlying epidermis at one or more points. The nests of cells are serpiginous and geographic in outline. He believes that they are most likely of hair matrix origin.

The squamous cell carcinoma is described[5] as a spherical, elevated, indurated, crust covered lesion which may develop a deep, dirty, ragged, irregular, indurated ulceration. Foot[15] states that histologically if the cells are infiltrating the corium the tumor is definitely malignant. The tumor may be chiefly keratinized and only mildly malignant or chiefly acanthomatous and very malignant.

The epithelioma, containing both basal and squamous cell elements usually has the appearance of a basal cell cancer but behaves more like the squamous cell type. Mac Kee[22] quotes Montgomery as saying that 12.6 per cent of apparent basal cell tumors are of the mixed type. Lindberg's[21] figures are about the same. We found 14 of the mixed type compared to 239 of the basal cell type. Davis[9] states that basal cell tumors with apparent metastasis have developed squamous cell neoplasm at their margins and that the metastasis is squamous cell in origin. We have recently seen such a case.

EARLY HISTORY

Very shortly after Roentgen's announcement of his discovery of x-ray brave men began applying it as a therapeutic measure. Mac Kee[22] states that Stenbeck of Stockholm was the first to treat an epithelioma. The case was presented in 1899. Sequeira[33] treated 45 cases of rodent ulcer in 1900 finding that the ulcers healed quite rapidly. About the same time Blacker[1] noted that the x-ray might produce slow healing ulcers. He guarded against this by surrounding the lesion with lead foil and using protracted small exposures. In 1901 Sequeira formally reported 12 cases in which he obtained very gratifying results. Johnson and Merrill[20] were the first in America, reporting two cases of epithelioma treated in 1900. Moore[24] points out that the use of small protracted exposures used by the early men was a fractionated type of therapy much like that proposed more recently by Coutard and now finding considerable use.

X-ray was quickly taken up by quacks of all sorts with many disastrous results. Pusey[27] however, pointed out in 1913 that very definite beneficial results could be obtained with x-ray therapy. Since that period the x-ray has well earned its present respect.

INCIDENCE

Our series of cases consists of 358 patients with 363 skin cancers. The highest incidence occurred in the age decade of 70-79 while the average age was 68 for males and 65 for females. Our oldest male and female were both 92 while our youngest male was 22 and our youngest female was 29. Our age grouping agrees with Schrek[31]. The average age in Daland's series was 60.8 and the highest age incidence in Cholnoky's series[5] was in the decade of 60-69. Hazen[17] states that age has no influence on the results of treatment. This is in accord with our findings. The average age of our cures was 66 and of our recurrences it was 68.5.

The incidence of skin cancer in relation to sex is fairly constant according to several series reported in the literature. Our findings are much the same as those of other authors. (See Table No. I)

TABLE NO. I

Series	*Male*	*Female*
Tice & White	64%	36%
Cholnoky (5)	64%	36%
Daland (8)	60%	40%
Driver & Cole (12)	60%	40%
Sutton (37)	61.5%	38.5%
Sweitzer (39)	66.5%	33.5%

In our basal cell lesions 83 per cent of the females and 80 per cent of the males were cured with one series of treatment. This is in accord with Hazen[17] and Mac Kee[22] who say that results in women are slightly better than those in men.

Of the 363 lesions in our series 239 or 65 per cent are classed as basal cell type and 124 or 35 per cent are classed as squamous type. There were 14 of mixed baso-squamous type which are included in the squamous cell group. It is difficult to compare the figures on the incidence of the types of lesions because of the selection of cases present in most series and because most series reported in the literature are not all biopsied cases.

In general the skin cancers dealt with here nearly all occur on the exposed parts of the body and most especially about the face.

TABLE NO. II LOCATION OF SKIN CANCERS

Location	*Basal Cell*	*Squamous Cell*	*All Lesions*
Nose	65-76.4%	20-23.6%	85-23%
Cheek	51-63.7%	29-36.3%	80-22%
Eyelid	48-90.5%	5- 9.5%	53-15%
Temple	17-56.6%	13-43.4%	30- 8%
Ear	15-51.7%	14-48.3%	29- 8%
Forehead	13-68.1%	6-31.9%	19- 5%
Upper Lip	9-56.2%	7-43.8%	16- 4%
Neck	9-64.2%	5-35.8%	14- 4%
Dorsum Hand	1- 6.3%	15-93.7%	16- 5%
Others	11-52.3%	10-47.7%	21- 6%

Other authors[5, 13, 12, 37] report an incidence of location of skin cancers very similar to that which we have found. (See Table II) Schrek[31] has summarized his information on location saying that squamous cell growths have a marked predisposition for the ears, hands and upper part of the face in the order of frequency while the basal cell lesions prefer the upper part of the face, the nose, and the ears. In our series 85 per cent of all the basal cell lesions occurred on the face.

METHOD OF TREATMENT

It is almost a truism to say that there have been as many ways of treating skin cancers as there have been men doing it. This is probably a good thing as there is an effort for the most part to individualize cases. Obviously a deep infiltrating cancer of the eyelid cannot be treated the same as a small lesion of the cheek. The principal methods at hand for therapy are surgery including electrodessication, radium and the roentgen ray. By far the greatest majority of our cases have been treated using the roentgen ray. We occasionally treat small superficial lesions with a half-strength radium plaque giving about 12 erythema doses. In deeply infiltrative lesions we have used interstitial radium needles each containing two mgm of radium and filtered by 0.5 mm platinum. We adjust the dose according to the volume attempting to reach 8 to 10 erythema doses.

For our x-ray therapy we use low (90Kv) voltage. Filtration is selected rather empirically according to the thickness of the lesion. For quite superficial lesions we ordinarily use no filtration for half the treatment and ½ mm Al for the remainder. For the thicker lesions we may use 1 mm Al filtration and very rarely more. We generally use a focal-skin distance of 8 to 12 inches. Except for a margin of about one-fourth inch of healthy appearing tissue we protect the surrounding tissue with lead foil. We use a cone large enough to cover the field and an inch or so beyond so that if there is slight movement the lesion is not displaced from the x-ray beam. We have found it helpful, particularly in older patients, to use sandbags to aid in holding the head still during the treatment.

We have used the massive or intensive type of radiation therapy, usually delivering the full dose in three to four sittings all given within one week's time. Our general plan of treatment now in use for the common skin cancer is shown in Table III.

TABLE NO. III METHOD OF ROENTGEN THERAPY

Day	*KVP*	*Filter*	*r Units*
first	90	0	1250
second	90	0	1250
third	90	½ mm Al	1250
fourth	90	½ mm Al	1250
	Total		5000

From 1933 through 1938 the total dose given ranged from 1000 to 3000 r. In 1939 and 1940 about half the cases received from 2000 to 4500 r with the remainder receiving up to 6000 r. Since then we have applied 5000 r as the routine dose. On some of the larger lesions where back scattering is a factor a slightly smaller dose is used.

The only surgical measure which we have employed has been the removal of necrotic tissue. Some large lesions have been treated in cooperation with the plastic surgery department.

The treatment outlined is not at all original and is quite similar to that used by others. Martin[23] prefers to use the soft rays of radium or x-ray as the effect is desired in the first few millimeters of tis-

sue. He employs the massive dose technique using 140 KVP with 1 mm Al filter and giving 2500 to 3000 r at one sitting to basal cell lesions.

In treating the large protruding neoplasms Hunt[18] employs both irradiation and surgery. For the pendulous type he surgically removes the tumor and then irradiates the base. For the deeply infiltrating ones he uses interstitial radium. Hazen[17] employs a filter in therapy only when there is some deep induration. He feels that an area ⅜ inch wide beyond the confines of the tumor should be treated.

A more prolonged type of therapy is used by some. Elliott[13] first employs curettage followed by electrodesiccation and giving 600 to 800 r at intervals of four to seven days until a dose of 3000 r is reached. He feels that the massive dose method results in more telangiectasis. Nelson[25] employs the Coutard technique giving 200 to 750 r per treatment with a total dose that may go up to 10,000 r. He feels that a higher rate of cure is obtained and that there is less skin damage. Schreiner[30] however thinks that the tumor may become resistant to radiation by the application of small doses.

The more massive dose method giving about 5000 r within a week's time is used by Bogart[2], Dresser[11], Flood[14], Ullmann[40], Widmann[41, 42] and Wigby[43]. For the larger and deeper lesions most authors use higher KVP and more filtration. Stevens[36] precedes x-ray with electrothermic coagulation and in squamous cell lesions routinely irradiates the draining lymphatics. Feeling that soft rays of low voltage therapy leave viable cells in the tumor bed Sims[35] uses 200 Kv therapy with medium filtration. He gives 4000 to 6000 r and avoids tissue fibrosis by using a different angle of the x-ray beam each treatment.

Chaoul[4] made the effect of x-ray similar to radium by shortening the focus-skin distance and decreasing the voltage. Using this method one may give 8,000 to 10,000 r over one field without irreparable damage. He reports good results.

Moore[24] states that within limits, the voltage and filtration used are not particularly important for it is probably the quantity of x-ray rather than the quality which evokes the biologic response. Widmann[42] notes that the great variation of doses and type of treatment which give good results is most confusing.

No mention has been made of the use of caustics and cancer pastes which are so frequently used by various quacks. It must be admitted that they may achieve good results in the small basal cell lesion but they are more painful and the cosmetic result is inferior[7].

Before the accurate standardization of x-ray therapy radium was used very extensively in the treatment of skin cancer and some men still use it in preference to x-ray. Cole and Driver[6] use prolonged interstitial irradiation with heavily filtered platinum iridium radium needles of small intensity in certain cases. The filter is 0.5 mm Plat. and they give 1500 to 3000 mg hours. They also use this in treating metastatic nodes. Daland[8] employed radon seeds feeling that beta radiation is required to destroy cancer. He used 1 millicurie per cc. of tissue. Widmann[41] uses the gamma rays of radium for treating the tissue around a squamous cell lesion as well as on the actual lesion because of their ramifying and infiltrative character.

Many lesions can be treated by surgery alone. This is usually done by the Plastic Department because of the repairs necessary due to defects. Sutton[37] in reporting a rather large series of basal cell lesions states that 90 per cent were treated by excision alone. Ullman[40] points out that surgical excision should be the method of choice about the hands and wrists because the proximity of bone and connective tissue makes late radiation necrosis more likely.

Since radium and x-ray began to be used extensively for the treatment of skin cancer there has been considerable controversy over which should be used—radium, x-ray, or surgery.

Several authors[10, 16, 21, 29] prefer the use of x-ray because they feel that the cure rate is as high as with other methods and that the cosmetic results are better. Hazen[17] mentions that x-ray can reach places which are difficult to treat surgically but he feels that surgery is the best treatment for squamous cell lesions. Bogart[2] says that surgery texts frequently state that irradiation is not effective in the treatment of the squamous cell lesions. Boggs[3] felt that the problem was not one for surgery since it is nearly always necessary to remove too much healthy tissue. Schreiner's[30] objection that the surgeon tries to come too close to the margin of the lesion in order to obtain a cosmetic result, and thereby leaves tumor behind would probably not apply to the better trained surgeon of today. Dresser and Dumas[11] feel that with radium needles and radon it is difficult to get an even distribution of the dosage. This would probably depend on the experience of the radiologist. Davis[9] warns that when a lesion does not respond rather quickly to x-ray it should have surgery.

An important factor in clinical practice pointed out by Moore[24] and Martin[23] is that x-ray is more economical in time and money and requires no anesthesia. Economy of time is of considerable importance to us here. It seems that the mere fact that the controversy has not been settled one way or another would indicate that each method of treatment has its uses and that a single case may have need of all three. Moore[24] has said that surgery and irradiation are not rival measures but the proper management of cancer means the coordination of surgery,

x-ray, and radium. Widmann[42] makes much the same statement but adds that he prefers x-ray.

Therapy of lesions of the nose pose added problems because of the close proximity of bone and cartilage, and because of the likelihood of their involvement. Dowdy[10] is of the opinion that even if the underlying cartilage is involved the disease may be completely eradicated with roentgen ray therapy. He uses 200 Kv with an HVL of 1.6 mm Cu to treat these cases giving 300 r per treatment up to a total dose of 3500 to 6000 r.

In the earlier years here at the university hospital treatment of nose lesions varied from 1000 to 3000 r but more recently we have been treating them much as lesions elsewhere giving 4000 to 6000 r of soft (90 Kv) x-ray with ½ mm Al filtration. When there is invasion of the cartilage there is some deformity due to its loss but we have not had more recurrences here than elsewhere. (See table No. VI A and B)

Treatment of epitheliomas of the pinna of the ear is difficult because of the underlying cartilage. For the most part we have given 4000 to 6000 r using soft rays (90 Kv) with zero or ½ mm Al filtration. Some of the smaller lesions have been treated with 2000 to 4000 r. We have had good results (See Table No. VI A and B) with the basal cell lesions but have had a fairly high rate of recurrence in the squamous cell lesions. In these cases with cartilage involvement surgical removal is probably the better form of therapy. Hazen's[17] experience has been the same, and he suggests that they be handled by surgery. Sutton[38] uses x-ray therapy if there is no cartilage involvement. He recommends that the treatment be not enough to cause a severe reaction. When there is involvement of the cartilage he too recommends surgical excision.

We have treated cancer of the eyelid much the same as skin cancers elsewhere. Up to about 1940 they were given 1000 to 3000 r but since then they have been given about 5000 r usually in three or four treatments all given in from three to five days. Soft rays (90 Kv) have been used with 0 to 1 mm Al filtration. The focal-skin distance is usually eight inches. Protection of the globe is very important. We anesthetize the eye with a drop of two per cent butyn sulphate and then insert a formed and especially smoothed piece of lead between the lid being treated and the globe. This is taped in place and then lead foil is used to cover the surrounding healthy tissue. Conjunctivitis occurs rather commonly but we have had no cataracts of the lens. We have found the above method very suitable because it is simple, takes little time, and is effective. Hazen[17] reports a rather low (77 per cent) rate of cure in cancer of the eyelid compared to others. We had a rather high per cent of recurrence (See Table No. VI A and B) with only one treatment but most of these were cured with an additional massive treatment.

Driver and Cole[12] have had quite good results in the eyelid lesions using 133 Kv therapy giving 1500 to 2300 r most of which is unfiltered. They sometimes use fractionated therapy giving only 900 r every other day up to a total dose of 3200 to 6000 r. They protect the globe with 1 mm gold plated brass cups which are first coated with paraffin. For the thick lesions they use interstitial radium needles. It should be pointed out that one cannot protect the globe from gamma rays with 1 mm of lead or brass.

In treating his cases of eyelid lesions Hunt[19] anesthetizes the eye with one drop of 0.5 per cent pontocaine and then inserts an eyeshield to protect the globe. They develop considerable conjunctivitis and he mentions that glaucoma may occur. According to him a post-irradiation cataract may occur from 9 months to 12 years after the therapy, two years being the average time. The dose causing the appearance of a cataract is not definitely known but is estimated to be about 1 skin erythema dose.

Surgery is not used as much in cancer of the eyelid as in other locations because of the resultant scar. Simmons[34] early felt that irradiation was indicated here because of the better cosmetic effect. Martin[23] prefers to use radon seeds in the eyelid lesions. Robinson[29] preferred to use interstitial radium and pointed out that when there is invasion of the orbit the globe should be sacrificed so that adequate treatment can be given to the tumor. Peter[26] uses beta or very soft (44 KVP) x-rays in treating extension of the cancer onto the conjunctiva giving about 1800 r.

CURES

It is quite difficult to make an analysis of cures and compare them with other series because of the difference in selection. In our series we have included only cases which have remained cured for one year or more. We have been influenced in this by Mac Kee[22] who says that the majority of recurrences manifest themselves in less than a year. In our own series there were 38 recurrences in the basal cell lesions with 60 per cent occurring in the first year. In

TABLE NO. IV CURES AND FAILURES

	Cured With 1st Therapy	*Cured With Added Therapy*	*Total Cured*	*Failure*
Basal Cell	171-82.7%	26-12.5%	95.2%	10- 4.8%
Sq. Cell	63-70.8%	8- 8.9%	79.7%	18-20.3%
Total	234-79.1%	34-11.7%	268-90.5%	28- 9.5%

the squamous cell lesions there were 29 recurrences with 79 per cent occurring in the first year. It is interesting to note here that 68 per cent of our recurrent basal cell lesions were cured with additional therapy while only 28 per cent of the recurrent squamous cell lesions could be cured.

Our cure rate of 95 per cent in basal cell lesions and 80 per cent in squamous cell lesions or 90 per cent when all lesions are considered compares favorably with those reported in the literature. (See Tables IV and V)

TABLE NO. VI B

Failure and Recurrence in Squamous Cell Lesions According to Location. 27 per cent of Recurrences Included had Metastases When First Seen

Location	*Cured*	*Recurred*	*% Recurrence*
Nose	15	4	21%
Cheek	16	7	30%
Eyelid	2	1	33%
Temple	8	3	27%
Ear	7	5	41%
Forehead	4	2	33%

TABLE NO. V CURE RATES BY VARIOUS AUTHORS

Author and Year	*Method of Treatment*	*Cure Rate*	
Chaoul (4) 1936	X-Ray	All Cases	93%
Dachtler (7) 1917	X-Ray	All Cases	90%
Flood (14) 1939	X-Ray	Basal Cell	96%
		Squamous Cell	82%
Driver and Cole (12) 1939	X-Ray	Eyelid Cases	94%
Hazen (17) 1925	X-Ray	All Cases	93%
Widmann (41) 1932	X-Ray	Superficial	87%
		Infiltrating	57%
Wigby (43) 1940	X-Ray	All Cases	85-95%
Mac Kee (22) 1938	X-Ray	All Cases	91%
Elliott (13) 1946	Electrodissection and X-Ray	All Cases	97%
Stevens (36) 1924	Electrocoagulation and X-Ray	Basal Cell	90-100%
		Squamous Cell	41-100%
Daland (8) 1926	Radium	Early Cases	81%
		Moderately Advanced	48%
Simmons (34) 1919	Radium	Immediate Cures	72.5%
Cholnoky (5) 1945	Surgery	Basal Cell	96%
		Sq. Cell (No ear cases)	87%
Tice and White 1947	X-Ray	Basal Cell	95%
		Squamous Cell	80%

RECURRENCES AND FAILURES

Comparing statistics on the number of recurrences is difficult because of the difference in the selection of cases and because most series do not separate basal and squamous cell type lesions. In our 239 cases of basal cell cancer there were 38 or 16 per cent recurrences. The squamous cell lesions are more difficult to evaluate. If we include those with metastases when first seen there were 124 total cases with 29 or 23 per cent recurrence. If cases with metastases are not included the per cent of recurrence drops to 18. We have already pointed out that 68 per cent of our recurrent basal cell lesions and 28 per cent of the recurrent squamous cell lesions were cured with additional therapy. (See Table VI A and B)

TABLE NO. VI A

Failures and Recurrences in Basal Cell Lesions According to Location

Location	*Cured*	*Recurred*	*% Recurrence*
Nose	47	11	18%
Cheek	38	7	15%
Eyelid	30	8	21%
Temple	14	2	12%
Ear	14	2	12%
Forehead	9	2	18%

The number of recurrences which we have had compare favorably with those listed in the literature. (See Table No. VII)

TABLE NO. VII

			No. of Recurrences
Author and Year	*Region*	*Basal or Sq. Cell*	*% Recurrence*
Mac Kee (22), 1938	All Areas	Basal Cell	13%
	Ear	Both	25%
	Eyelid	Both	9%
Quigley (28), 1923	Face	Both	10%
	Eyelid	Both	7%
	Ear	Both	22%
Schrek (31), 1941	All Areas	Basal Cell	21.5%
	All Areas	Sq. Cell	17.8%
Simmons (34), 1919	All Areas	Both	21.4%
Stevens (36)	All Areas	Both	23%
Tice and White, 1947	All Areas	Basal Cell	16%
	All Areas	Sq. Cell	18%

One factor influencing the number of recurrences is the size of the original lesion. Both our squamous and basal cell lesions which recurred were on the average larger than those which were cured with one series of treatment. (See Table No. VIII.) This is

in accord with Hazen[17] who reported his cures in relation to size.

Under ½ inch — 99%
½—⅞ in. — 89%
1—1¼ in. — 63%
1½—2 inch — 42%
Over 2 inches — 58%

Dresser and Dumas[11] found that in lesions 1 cm or more in thickness there was a high rate of recurrence because the base, or tumor bed received too little irradiation.

TABLE NO. VIII

Size of Cured and Recurrent Lesions

	Cured	*Recurrent*
Average Size Basal Cell	2.0 cm	2.8 cm
Average Size Sq. Cell	2.4 cm	3.7 cm

In our series the age of the patient had no significant effect on the percentage of the recurrence. Mac Kee[22] reports the same and also states he obtained slightly better results in females. We found the difference so slight as to be of little significance.

In an effort to determine the relationship between the size of the treatment and number of recurrences we have tabulated the results for both the basal and squamous cell lesions. (See Table No. IX A and B)

In our tabulation of squamous cell cases there is rather uneven distribution of cases so that some of the results are not statistically significant. Our largest group of cases is in the 5000 r range and they have the lowest percentage of recurrences.

TABLE NO. IX A

Size of Treatment and Recurrences in Squamous Cell Cancer. 27% of Recurrences had Metastasis When First Seen

Size of Initial R	*Number of Cases*	*Cured*	*Recurred*	*% Recurrences*
0 to 999 r	2	1	1	50%
1000 to 1999 r	13	10	3	23%
2000 to 2999 r	11	8	3	27%
3000 to 3999 r	5	3	2	40%
4000 to 4999 r	25	17	8	32%
5000 to 5999 r	32	25	7	22%
6000 to 6999 r	3	2	1	33%

TABLE NO. IX B

Size of Treatments and Recurrences in Basal Cell Cancer.

Size of Initial R	*Number of Cases*	*Cured*	*Recurred*	*% Recurrences*
0 to 999 r	3	2	1	33%
1000 to 1999 r	40	36	4	10%
2000 to 2999 r	38	32	6	15%
3000 to 3999 r	26	18	8	31%
4000 to 4999 r	37	32	5	13%
5000 to 5999 r	64	58	6	9%
6000 to 6999 r	5	4	1	20%

The same is true in the basal cell epithelioma series. It is more striking if one compares the basal cell lesions that received from 4000 to 5999 R which had 10.8 per cent of recurrences with the cases receiving 1000 to 3999 r which had 17.3 per cent recurrences. We believe that the difference is great enough to justify the use of the higher doses particularly since they are attended with so few complications.

Another factor influencing the response to therapy is the previous irradiation which has been given to the lesion. Widmann[41] and Stevens[36] both feel that if a lesion has had previous irradiation it is more resistant to subsequent irradiation therapy. It is for this reason that Stevens feels that therapy should be completed in one to two sittings. Hazen[17] states that previous roentgen or radium therapy cuts the cure rate to 52 per cent. Only 10 of our cases had received previous irradiation and only five of these could be cured with one series of treatments, with two additional being cured by added irradiation. Pre-

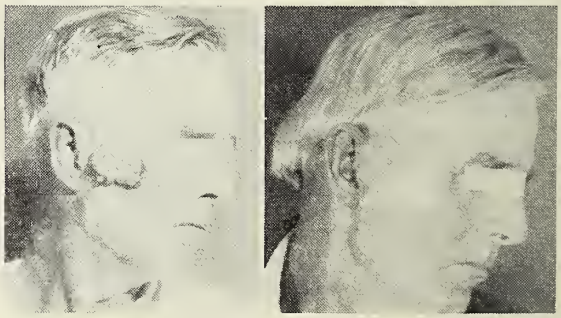


Figure 1. W. H., July, 1935, age 52. Biopsy, squamous cell epithelioma. Treatment, x-ray, 1700 r. Died five years later from other causes. No recurrence. Six-year cure.

vious surgery had no effect upon the response to treatment in this series.

The causes for recurrence after the initial treatment appear to be many. Hazen[17] lists the following:

Growth too extensive
Cartilage involvement
Previous radiation
Growth in scar tissue
Too small an exposure

Bogart[2] feels that failure is largely due to inadequate dosage. We agree with the items in Hazen's list and would like to add that too close shielding of the lesion may be a factor in recurrence. The larger lesions are also much more apt to recur.

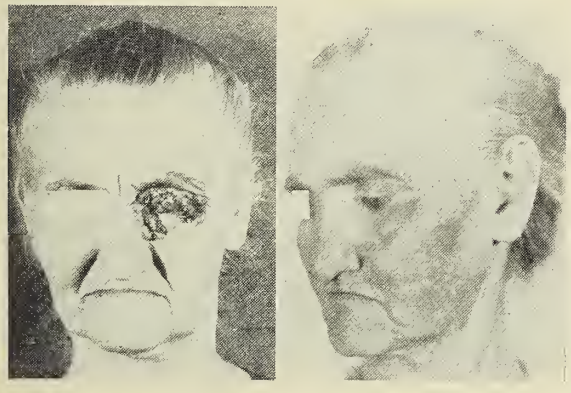


Figure 2. J.R., April, 1942, age 64. Biopsy, basal cell epithelioma. Treatment, x-ray, 4760 r, globe protected. Living now with no recurrence. Sight remained in left eye until one year ago when lost in an accident. Five-year cure.

COMPLICATIONS

The complications of irradiation therapy for skin cancer have been discussed but little in the literature. This is probably because of their relative rarity. Telangiectasis is often considered as a complication but replacing a malignant neoplasm with a scar that may contain a little telangiectasis should hardly be considered as a complication.



Figure 3. C.P., November, 1942, age 80. Biopsy forehead, squamous cell. Biopsy nose, basal cell. Treatment, 6500 r to forehead tumor, 5120 r to nose tumor. Still living. No recurrence. Five-year cure.

Most of the ulcerated tumors are infected when first seen. In our experience this infection rapidly subsides with boric acid soaks and x-ray therapy. Hemorrhage was a rather common occurrence in our advanced cases with metastases. The destruction of tumor that has invaded the wall of an artery may give rise to hemorrhage. In this way at least it is a complication of the irradiation.

We have had but little telangiectasis in our cases. When it did occur it was not very marked and was in cases with lesions which were quite large. Nearly all of our scars have been thin, greyish white and soft and pliable. Widmann[41] however feels that if over 3000 r is given to lesions of 1 to 2 cm that delayed healing and thick telangiectatic scars may result. This has not been our experience.

Chronic radiation ulcers have not been rare in our series having an incidence of 4.6 per cent in the 363 lesions treated. The greatest majority has occurred in the lesions receiving from 4000 to 6000 r. (See Table No. X). Nearly all of these have been repaired by relatively simple plastic surgery. Widmann[41] uses 5000 to 10,000 r on large lesions and states that radiation necrosis is not a serious factor but he gives no frequency percentages.

TABLE NO. X

Chronic Ulcers in Relation to Size of Treatment.

Size of Treatment	*Number of Ulcers*
0 to 1999 r	1
2000 to 2999 r	1
3000 to 3999 r	2
4000 to 4999 r	6
5000 to 5999 r	6
6000 to 6999 r	1
Total	17
Incidence in Series	4.6%

The chronic ulcers tend to occur when the lesions are on surfaces closely applied to bone. It still seems the best policy to use the massive treatment of 5000 r rather than risk a recurrence which might not respond to further radiation.



Figure 4. E.K., January, 1934, age 59. Biopsy, basal cell epithelioma. Treatment, x-ray 5500 r. No recurrence by 1946. Twelve-year cure.



Figure 5. E.S., December, 1938, age 49. Biopsy, multiple basal cell epithelioma, Bowen's disease. Treatment, x-ray, 2300 r to each. No recurrence in 1946. Eight-year cure.



Figure 6. I.H., January, 1939, age 90. Biopsy, squamous cell epithelioma. Treatment, x-ray, 8490 r plus 3840 r to one margin six weeks later. Died three years later of other causes. No recurrence. Three-year cure.

SUMMARY

1. A series of 358 patients with 363 skin cancers proved by biopsy is presented with analysis of cures and recurrences compared to those presented in the literature. Treatment most often used was Roentgen ray irradiation.

2. In this series of cases the basal cell epithelioma showed a cure rate of 95.2 per cent and the squamous cell a cure rate of 79.7 per cent. The overall cure rate was 90.5 per cent.

3. The massive type of x-ray therapy is not only more effective than the fractionated type but also is more economical in time saved for both the patient and physician.

4. Skin cancer may be cured by surgical methods, radium, or x-ray or by a combination of the three. One should use the method in which he is most proficient.

5. Chronic radiation ulcer is the only significant complication of x-ray therapy for skin cancer. It occurred in 4.6 per cent of our cases and was generally handled easily by plastic repair.

BIBLIOGRAPHY

1. Blacker, Arthur B.: Proceedings of Section of Dermatology of British Medical Association. British Med. Jour., 2:849, 1901.
2. Bogart, Franklin: Irradiation Treatment of Cancer of the Skin. Radiology, 36:12, 1941.
3. Boggs, Russell H.: Treatment of Epithelioma by Radium. American Journ. of Med. Science, 158:87, 1919.
4. Chaoul, H.: Close Roentgen Irradiation as Substitute for Radium Therapy. Journ. A.M.A. Berlin letter, 107:1823, 1936.
5. Cholnoky, Tibor: Cancer of the Face. Annals of Surgery, 122:88, 1945.
6. Cole, H. N. and Driver, J. R.: Radium Dosage and Technique in Carcinoma of the Skin. Am. Journ. Roentgenol. and Rad. Ther. 33:682, 1935.
7. Dachtler, H. W.: Roentgenological Treatment of 530 Cases of Malignant and Other Tumors of the Face. Am. Journ. Roentgenol. and Rad. Ther., 4:599, 1917.
8. Daland, Ernest M.: End Results of Radium Treatment of Skin Cancer. Journ. A.M.A., 86:471, 1926.
9. Davis, Warren B.: Basal Cell Lesions of the Nose, Cheek and Lips. Annals of Surgery, 119:944, 1944.
10. Dowdy, Andrew H.: Roentgen Ray Therapy of Skin Cancer. N. Y. State Journ. Med., 40:621, 1940.
11. Dresser, Richard and Dumas, Charles: Treatment of Cancer of the Skin by Divided Doses of High Voltage Roentgen Rays. Am. Journ. Roentgenol. and Rad. Ther., 36:332, 1936.
12. Driver, J. R. and Cole, H. N.: Epithelioma of the Eyelids and Canthi. Am. Journ. Roentgenol. and Rad. Ther., 41:616, 1939.
13. Elliott, Joseph and Welton, David: Epithelioma. Arch. Dermat. and Syph., 53:307, 1946.
14. Flood, Phillip and Smithers, D. Waldron: Short Distance Low Voltage X-Ray Therapy. British Journ. Rad., 12:462, 1939.
15. Foot, Nathan Chandler: Pathology In Surgery. Lippincott, Philadelphia, 1945.
16. Sharp, George S.: Treatment of Cancer of the Eyelids. Discussion by Goar, Everett L., Journ. A.M.A., 111:1617, 1938.
17. Hazen, Henry H. and Whitmore, Eugene: Results In Roentgen Ray Treatment of Cutaneous Cancer. Am. Journ. Roentgenol., 13:144, 1925.
18. Hunt, Howard B.: Treatment of Large Protruding Carcinomas of the Skin and Lip by Irradiation and Surgery. Am. Journ. Roentgenol. and Rad. Ther., 44:254, 1940.
19. Hunt, Howard B.: Cancer of the Eyelid Treated by Radiation. Am. Journ. Roentgenol. and Rad. Ther., 57:160, 1947.
20. Johnson, Wallace and Merrill, Walter: X-Rays in the Treatment of Carcinoma. Phil. Med. Journ., 6:1089, 1900.
21. Lindberg, Ludwig: Basal Cell Epitheliomata. Jour. Arizona M. A., 2:35, 1945.
22. Mac Kee, G. M.: X-Rays and Radium in the Treatment of Diseases of the Skin. Third Edition, Lea and Febiger, Philadelphia, 1938.
23. Martin, H. E.: Radiation Therapy in Skin Cancer. Am. Journ. Cancer, 19:605, 1933.
24. Blair, Vilray; Moore, Sherwood and Byars, Louis: Cancer of the Face and Mouth. C. V. Mosby Co., 1941.
25. Nelson, Marque: Fractional X-Ray Treatment of Skin Cancer. Jour. Oklahoma M. A., 37:47, 1944.
26. Peter, Gustav: X-Rays and Radium Treatment in Tumors of the Conjunctiva. Radiology, 24:745, 1935.
27. Pusey, William Allen: What can be Done in Cancer With Roentgen Rays? Jour. A.M.A., 61:552, 1913.
28. Quigley, D. T.: The Treatment of Superficial Cancer With Statistics and Technique. Am. Jour. Roentgenol. and Rad. Ther. 10:161, 1923.
29. Robinson, G. Allen: Cancer of the Eyelids. Am. Jour. Roentgenol. and Rad. Ther., 38:743, 1937.
30. Schreiner, B. F., Simpson, B. T. and Muelle, Theodore: Diagnosis and Treatment of Basal Cell Epitheliomas. Am. Jour. Surgery, 33:1, 1919.
31. Schrek, Robert and Gates, Olive: Cutaneous Carcinoma. Arch. of Path., 31:411, 1941.
32. Sequeira, James H.: A Preliminary Communication in the Treatment of Rodent Ulcer by the X-Rays. British Med. Jour., 1:332, 1901.
33. Sequeira, James H.: Proceedings of Section of Dermatology of British Medical Association. British Med. Jour., 2:849, 1901.
34. Simmons, C. C.: Treatment of Carcinoma of the Skin. Boston Med. and Surg. Jour., 181:477, 1919.
35. Sims, George P.: High Voltage Roentgen Irradiation of Accessible Cancer of Skin and Mucous Membranes. Radiology, 37:666, 1941.
36. Stevens, J. Thompson: Statistics and Technique in the Treatment of Superficial Malignancy with Radium, Roentgen Rays and Electrothermic Coagulation. Am. Jour. Roentgenol. and Rad. Ther., 11:241, 1924.
37. Sutton, Richard L.: Carcinoma of the Skin. Jour. Missouri M. A., 39:203, 1942.
38. Sutton, Richard L.: Carcinoma of the External Ear. Jour. A.M.A., 74:88, 1920.
39. Sweitzer, Samuel: An Analysis of Forty-Three Cases of Skin Cancer. Jour. A.M.A., 69:179, 1917.
40. Ullman, Henry J.: Cancer of the Skin: A Statistical Report. Radiology, 46:279, 1946.
41. Widmann, Bernard P.: Unfiltered Roentgen Rays for Superficial Cancers of Wide and Deep Involvement. Am. Jour. Roentgenol. and Rad. Ther., 28:526, 1932.
42. Widmann, Bernard P.: Radiation Therapy in Cancer of the Skin. Am. Jour. Roentgenol. and Rad. Ther., 45:382, 1941.
43. Wigby, Palmer and Cohen, Meyer: Radiation Therapy of Carcinoma of the Skin. Radiology, 35:70, 1940.

It is well known that the incidence and severity of illness are greater among the urban poor than among the more prosperous groups. Ignorance is a factor in promoting high sickness rates, but ignorance is in part a result of poverty.—Med. in the Changing Order, Rep. New York Acad. Med. Comm., The Commonwealth Fund, 1947.

PREFRONTAL LOBOTOMY, A METHOD OF TREATMENT FOR CHRONIC MENTAL ILLNESS*

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"Consciousness is the mere surface of our minds, of which, as of the earth, we do not know the inside, but only the crust."—Schopenhauer.

HISTORICAL

The surgical interruption of the nerve fiber tracts situated in the prefrontal area, that is, in the frontal lobes anterior to the motor strip, is a comparatively recent procedure for the treatment of selected patients suffering with chronic mental illness. Such medical historians as Clendening[2] have found, however, that primitive man also practiced, "psychosurgery". Primitive medicine men by means of crude instruments made trephine holes to allow the escape of evil spirits which were believed to be causing the unfortunate patient's illness.

The newness of this therapy in its modern form becomes even more impressive when it is realized that the first formal type of prefrontal lobotomy performed on a mental patient was done by Egaz Moniz, just 12 years ago—on November 12, 1935. In 1936, Moniz[7] published a monograph, announcing to the medical world the results of 20 cases treated by interruption of a portion of the fibers constituting the white matter in the prefrontal area of the brain.

Freeman and Watts,[3] in this country, being aware of the urgent need for additional types of psychiatric therapy, recognized the possibilities of prefrontal lobotomy from Moniz's work, and with their own modified technique applied his principles to the problem of mental illness in America. These physicians were the leaders and simulators of this form of therapy in the western hemisphere. Today prefrontal lobotomy is being increasingly accepted by neuropsychiatrists throughout the world as a valuable weapon in their armamentarium for the struggle against mental illness.

EXPERIMENTAL BACKGROUND

Research in neurology during the 20th century may be characterized by an increased interest in the function of the frontal lobes of the brain. Many experimental and clinical studies of this region have been reported during the last 40 years.

Fulton and Jacobson,[4] in 1934, studied frontal lobe function in chimpanzees. They observed that when this experimental animal is placed in a frustrating situation, he usually becomes excited and has "temper tantrums". They found the chimpanzee's usual reaction to frustration to include urination, defecation, shaking the bars of the cage, crying, and rage behavior.

Surgical extirpation of the frontal areas of chimpanzees results in a marked change in their behavior. They show a varying degree of apathy, and often fail to show any motor reaction to a previously frustrating situation. The postoperative animal appears indifferent to an experimental problem. Fulton and Jacobson[4] found that operated chimpanzees seem unable to remember new sensory impressions. Following surgery, the animals showed no actual motor weakness or disturbance but they were obviously unable to organize their movements along a specific pattern. A "frontal area chimpanzee", one from which both frontal areas have been removed, appears restless, distractable and facetiously calm. It has been suggested that the removal of the frontal areas, which diminishes the memory of recent events, increases the importance of immediate sensory clues as determining motor responses. This results in a profound alteration in the chimpanzee's behavior, and among other things, prevents the appearance of complex behavior patterns, including experimental neuroses.

Among many other investigators, Ward and McCulloch,[8] have studied the projections of the frontal lobe to the thalamus and hypothalamus. The experimental technique of physiological neuronography was applied by these workers to this study. By means of this technique they found that if strychnine is applied to small areas of the frontal cortex, electrical activity at these sites can be recorded with needle electrodes placed in various hypothalamic nuclei. Such experimental evidence indicates that specific frontal areas "fire" to specific portions of the thalamic and hypothalamic regions. Despite these experimental accomplishments, many areas of the frontal lobes remain uncharted.

CLINICAL BACKGROUND

Patients with frontal lobe brain damage, whether by trauma, tumor, or direct surgical attack, show behavioral, emotional and cognitive changes. These clinical observations were studied after World War I by both neurologists and neurological surgeons.

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Goldstein[5] described these behavioral alterations as "concrete behavior". The accumulated data on circumscribed lesions in the frontal area and the surgical removal of one or both frontal lobes gave the opportunity for correlation of experimental evidence with clinical findings.[4] At the International Neurological Conference in London in 1935, a major symposium was held on all available data on frontal lobe function. In the courageous mind of Moniz, who was present at that meeting, was born the possibility of a new form of physical therapy for the mentally ill.

TECHNIQUES

Moniz first attempted to do a prefrontal lobotomy by injecting alcohol into the frontal lobes, but rejected this method for actual surgical removal of cores of white matter from the frontal lobes. With experience he gradually increased the number of cores of white matter removed bilaterally. Later he undercut the fibers on each side by means of a wire. Freeman and Watts modified the technique described by Moniz. They used a lateral approach in which they severed the white matter in the four quadrants in the prefrontal area. Lyerly[6] improved over the previous "blind" surgical techniques by utilizing a superior surgical approach and subcortical incision which could be done under continuous, direct vision.

Numerous techniques have been proposed to accomplish the result ascribed to prefrontal lobotomy. Some have advocated unilateral prefrontal lobectomy, others bilateral prefrontal lobectomy. More recently, interest has been increased in a transorbital surgical approach. Those who recommend this latter technique feel that incision related to the orbital cortex alone may be adequate to accomplish the desired changes in the psychotic patient.

The term prefrontal lobotomy has become limited to that surgical procedure in which the white matter is cut in all four quadrants of the prefrontal area of both cerebral hemispheres. Leucotomy refers to any procedure in which the white matter is not severed in all four quadrants of both prefrontal areas.

INDICATIONS FOR PREFRONTAL LOBOTOMY

Because of the comparatively recent development of prefrontal lobotomy, it is difficult to make dogmatic generalizations with reference to those cases which will benefit from this operation. There is a great need for more complete preoperative, operative and postoperative correlative studies to aid in the selection of cases for this treatment. At present, it seems indicated in those patients who are believed to be chronically ill, who have not responded to all other forms of acceptable treatment, and who have not shown any indication of spontaneous remission from their illness. Schizophrenics who have been ill for a minimum of two years and who have not responded to insulin and electro-shock therapies, or for whom these types of therapy are contraindicated, are potential candidates for prefrontal lobotomy. Manic-depressive patients who have had repeated attacks over a period of years with progressing periods of incapacity, the latter having persisted for at least 50 per cent of the time, can be anticipated to show improvement with prefrontal lobotomy.

An involutional psychotic who has been ill for more than three years and who has failed to respond to at least two series of convulsive shock therapy, or in whom shock therapy is contraindicated, or whose life is in jeopardy because of the psychosis, should be given the benefits of prefrontal lobotomy. This procedure is also indicated in a severe obsessional compulsive disorder which is of at least three years duration, which has not responded to other therapies, and which has resulted in total incapacitation of the patient. Relief of intractable pain may be accomplished by prefrontal lobotomy in those patients where less radical procedures have proved ineffective or contraindicated. Experience at present would indicate that prefrontal lobotomy is contraindicated in chronic alcoholism, drug addiction, psychopaths and sexual deviates. It has been observed that those patients who show marked evidence of deterioration from the psychotic process are not good candidates for prefrontal lobotomy.

POSTOPERATIVE RESULTS

Prefrontal lobotomy is not a specific remedy for any particular mental disorder, but it often relieves the state of morbid emotional tension and distress and it disrupts the behavior pattern dependent upon these states. Immediate postoperative changes include emotional flattening, diminished spontaneity, lack of attention, indifference, loss of judgment, euphoria, unresponsiveness, talkativeness, disorientation and perseveration. The patient may be incontinent of urine and feces for a period of a few weeks. Transitory aphasias, hemiplegias and the appearance of abnormal reflexes have been reported in the immediate postoperative course. Autonomic effects which have been noted frequently include lowering of blood pressure, bradycardia, increased sugar tolerance and an increase of free hydrochloric acid in the gastric secretion. The most striking immediate postoperative effect, however, is frequently the dramatic relief from morbid anxiety and tension. It has been observed that the severity of the postoperative course is related to "the placing of the incision" in the subcortical area of the frontal lobe. Thus the more posterior the cut is made, the greater the akinesia. The immediate postoperative undesirable effects are temporary and have usually cleared

within a few weeks. The postoperative psychiatric convalescence, however, may extend up to three years. It is extremely important during the postoperative convalescent phase that the patient receive continuous psychotherapy. Unless adequate psychotherapeutic management is afforded the patient during his convalescence, his chances for recovery become minimal.

Assessment of postoperative results in general is difficult because of the lack of uniform terminology. Secondly, there have been many variations in the neurosurgical procedure itself. About 5,000 cases have been reported to our knowledge from the English speaking countries. The present over-all picture suggests that approximately 30 per cent of the patients subjected to this procedure have been able to resume their existence outside of the hospital, and have been able to support themselves. Another 20 per cent have been able to leave the hospital and to live with their families. Some 30 per cent are considered improved as compared to their preoperative status but require continued hospitalization. About 20 per cent show little to no improvement and included in this group is a small percentage, about two to five per cent, who may be considered to have been made worse by the procedure. The mortality rate varies between two and five per cent.

CONCLUSION

Those who have had practical experience with prefrontal lobotomy agree to the importance it is assuming in our present treatment of the mentally ill. Although some are critical of the procedure because of their lack of experience with it, criticism in others may stem from deep-rooted unconscious antagonism. It is interesting to note that those countries in which psychoanalysis was most firmly rooted were in general the last to accept and use this technique. Such reluctance to accept prefrontal lobotomy may be useful in curbing the over-enthusiastic and impetuous exponents of all physical methods of psychiatry.

BIBLIOGRAPHY

1. Brickner, R. M.: *The Intellectual Functions of the Frontal Lobes.* New York, MacMillan Company, 1936.

2. Clendening, Logan: *The Romance of Medicine.* New York, Garden City Publishing Company, 1943.

3. Freeman, W., and Watts, J. W.: *Psychosurgery.* Baltimore, C. C. Thomas Company, 1942.

4. Fulton, J. F., and Jacobson, C. F.: The Functions of the Frontal Lobes. *Fifteenth International Congress Advances in Modern Biology* IV, 113, 1935.

5. Goldstein, K.: *The Organism.* New York, American Book Company, 1939.

6. Lyerly, J. G.: Transsection of the Deep Association Fibers of the Prefrontal Lobes in Certain Mental Disorders. *The Southern Surgeon,* Vol. 8, 1939.

7. Moniz, E.: *Tentative operatoires dans le traitment de certaine psychoses.* Paris, Masson, 1936.

8. Ward, A., and McCulloch, W. S.: The Projection of the Frontal Lobes on the Hypothalamus. *The Journal of Neurophysiology,* Vol. X, No. 4, July, 1937.

RUPTURED ECTOPIC PREGNANCY COMPLICATING A NORMAL INTRA-UTERINE PREGNANCY

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Wichita, Kansas

The presence of a combined intra and extra-uterine pregnancy, while rare, is by no means so unusual that it should not be given consideration when one is confronted by an early pregnancy with signs of threatening abortion, or by an early pregnancy with an acute abdomen.

According to Novak,[7] the first case of combined intra and extra-uterine pregnancy was reported by Duverney in 1708. The diagnosis was made at autopsy, the mother having died in the third month of pregnancy as a result of rupture of the extra-uterine pregnancy. In 1913 Neugebauer[30] reported a total of 244 cases gathered from medical literature. Novak, in 1925, reviewing the literature from 1913 to 1925, was able to collect 32 new cases and add two cases of his own, thus bringing the total to 278 cases. A review of the quarterly cumulative index from 1925 to July, 1946, shows 22 additional cases reported. These, plus the case reported below, bring the total to 300.

In reviewing the literature one is immediately impressed with the paucity of cases reported in the United States. Since 1913 a total of 54 cases have been presented; of these, 15 occurred in the United States, and of these 15 cases, seven were operated for the ruptured ectopic gestation and the patients subsequently delivered normal infants from six to seven months after the date of surgery. The remaining eight cases lost both the ectopic and intra-uterine pregnancy. Several cases have been reported in which both the ectopic and intra-uterine pregnancy progressed to term without accident and both were delivered alive with the aid of surgery.

REPORT OF CASE

Mrs. N. T., an obese white female, 23 years of age, appeared in my office on the afternoon of March 22, 1946, complaining of severe lower abdominal pain and distress, the onset of which had occurred suddenly just after she had arisen that

morning. Just prior to the onset of the pain she had noticed that there had been a small amount of vaginal spotting of old dark blood during the night.

The last menstrual period had begun on February 2, 1946, and was normal with respect to time of occurrence, duration, amount of flow, and the usual absence of discomfort. Her menstrual periods began at age 11 and were regular every 28 days until the occurrence of her only pregnancy which had terminated spontaneously in July, 1943, after a duration of three and one-half months with no sequela or complications. The patient had complained of infertility since the miscarriage and had been on a reducing diet and thyroid gland extract for several months prior to onset of present illness.

Physical examination was as follows: weight 190 pounds, height five feet, temperature 100°F, blood pressure 110/60, pulse 86; heart and lung fields were essentially normal; marked tenderness and pain to both pressure and rebound pull were present in both lower quadrants; no definite rigidity could be found. Pelvic examination was unsatisfactory due to the obesity of the patient and the pain present, but it was felt that there was a suggestion of a small, indefinite mass present in the right adnexa, while the uterus and left adnexa were apparently normal. The cervix was soft and closed with a small amount of dark blood escaping from the os.

The patient was admitted to St. Joseph Hospital for observation. The admission erythrocyte count was 4,010,000, Hbg. 80 per cent (Hagen), white blood count, 7800 with a differential of 28 lymphocytes, 70 polymorphonuclears, and two monocytes. Urinanalysis was reported essentially within normal limits. The patient was kept under observation for four days, during which time the vaginal bleeding (very slight) ceased after the second day, the pain subsided, but she continued to remain sore to pressure over the lower abdomen, blood count remained the same as of admission, with no significant elevation of the white blood count or any lowering of the red blood count or hemoglobin. Although a tentative diagnosis or ectoptic pregnancy was entertained, the clinical and physical and laboratory picture could also be easily fitted into a possible early uterine pregnancy with a troublesome mass in the right adnexa, throwing the patient into a state of threatened abortion. The Aschheim-Zondek test had been reported as positive.

A consultation was held on the fourth hospital day. A tentative diagnosis of ectopic pregnancy was made, even though the uterus did seem to be a little larger than normal. It was felt that this slight enlargement was the sympathetic enlargement that sometimes accompanies an ectopic pregnancy. It was agreed that surgery was indicated.

The patient was taken to surgery on the fifth hospital day and under a general anesthetic the abdomen was opened through lower right rectus incision. The right tube contained a ruptured ectopic pregnancy. A small parovarian cyst was also present which was adherent to the tube. There were several old blood clots in the cul-de-sac, with a total volume of approximately 150 cc. Both ovaries and the left tube presented no pathology. The uterus was slightly enlarged and soft, but no discoloration was present. A right salpingectomy was done, the blood clots removed, and the abdomen closed without drainage. The post-operative course was uneventful and the patient was dismissed on the tenth postoperative day.

The pathological report of the specimen removed at surgery is as follows:

Gross Pathology. Specimen consists of previously opened Fallopian tube about 1½ cm. thick and a 1½ cm. parovarian cyst attached by a slender pedicle to its serosa. There is also a separate 2½ cm. ovoid chocolate mass consisting largely of blood clot.

Microscopic Pathology. Microscopic sections of the blood clot show numerous chorionic villi.

Diagnosis: ectopic pregnancy.

On May 10, 1946, the routine six weeks' postoperative examination was done. During this time there had been no vaginal bleeding and the patient had had a normal convalescence. The pelvic examination revealed the uterus to have the typical enlargement of a three months' pregnancy. The patient was placed on routine prenatal care. The date of confinement as calculated from February 2, 1946, was November 9, 1946. On November 6, 1946, after a normal labor, a six pound 11½-ounce normal male infant was delivered. Both the baby and the mother have done nicely during the past year. The mother is now three months pregnant with no complications.

COMMENTS

According to Beck,[31] the diagnosis of ectopic gestation in a Fallopian tube at the time of its abortion or rupture, whether internal into the lumen of the tube or external into the abdominal cavity, is easily made when the abortion is accompanied by a massive, diffuse hemorrhage into the peritoneal cavity associated with severe lower abdominal pain, rapid appearance of shock and a small amount of vaginal spotting of blood. These findings, when accompanied by a history of a skipped period and supported by physical examination showing lower abdominal tenderness with a painful mass on one side of the uterus, make the diagnosis even more positive.

Too often, however, this clear-cut picture is not present because the hemorrhage into the abdominal

cavity is very slight and is intermittent in character; consequently, the pain is only moderate and there may be only discomfort in the lower abdomen. When mild symptoms are associated with an unsatisfactory pelvic examination as in an obese or uncooperative patient, the diagnosis becomes confused with other pelvic conditions. Particularly one must consider an early threatened abortion in which no dilatation or relaxation of the cervix is as yet present. It is estimated that the condition was correctly diagnosed preoperatively in less than five per cent of the cases coming to surgery before three months of gestation.

Below are listed some of the diagnoses made preoperatively:

1. Ruptured ectopic pregnancy (no suspicion of uterine pregnancy present).
2. Uterine pregnancy with acute appendicitis.
3. Abortion of uterine pregnancy with rupture of uterus.
4. Uterine pregnancy with volvulus or strangulation of adnexa tumor.

At the time of operation for the ruptured ectopic pregnancy, the uterus may be found to be sufficiently enlarged (2½ to 3 months, or larger) to make a definite diagnosis of an associated intra-uterine pregnancy, or the enlargement may be so insignificant as to be entirely overlooked and the diagnosis completed by pelvic examination a month or six weeks later as in this case.

There appears to be little doubt that these are true twin pregnancies (superfecundation) as contrasted with a superimposed pregnancy upon the other (superfetation). It would be difficult to prove a superfetation, while the proof of the superfecundation is had by the size of the ectopic pregnancy and the size of the uterus at the time of surgery.

SUMMARY

A case of combined intra and extra-uterine pregnancy with successful surgical removal of the ruptured extra-uterine pregnancy and subsequent normal delivery of a healthy, full-term infant 7½ months later is reported. A total of 15 cases have been reported as having occurred in the United States since 1913. All of these were subjected to laparotomy for the ruptured ectopic gestation with subsequent survival of the uterine pregnancy in seven cases; the other eight miscarried or were interrupted by surgery, hence a uterine fetal mortality of 54 per cent.

Since submitting the paper for publication, two other cases of ruptured tubal pregnancy combined with uterine pregnancy have been reported in the quarterly Cumulative Index ending with July, 1947. In one,[32] a salpingectomy was done for the ectopic pregnancy and the uterine pregnancy carried to full term with resulting normal living infant. In the other,[33] the ectopic pregnancy was operated but the uterine pregnancy miscarried at six months.

BIBLIOGRAPHY

1. Lawrence & Elsemore: Am. J. Obst. Gynec. 48: 709-713, November, 1944.
2. Martin & Meyer: Am. J. Obst. & Gynec. 36: 1071-1072, December, 1938.
3. Dolan, E. J.: J.A.M.A. 110: 1438-1439, April, 1938.
4. Milnor & Bowles: Am. J. Obst. & Gynec. 40: 511-512, September, 1940.
5. Kohn & Burchord: J. Christian M. A., 20: 193-194, November, 1945.
6. Howard, G. T. Jr., South, M. J. 38: 788-799, December, 1945.
7. Novak, E. J. Surg., Gynec. & Obst. Vol. XLIII: 26-37, July, 1926.
8. Boldt. Am. J. Obst. LXXV: 865, 1917.
9. Curtis, Surg., Gynec. & Obst. 1918 XXVII, 232.
10. DuBose. South, M. J. 1915, VIII, 784.
11. Keyes, New York M. J. 1923, CXVIII, 611.
12. Matthews. Med. Sentinel, 1924, XXXII, 154.
13. Sullivan, J. Am. M. Ass., 1917, LXVIII, 843.
14. Miltra. J. Obst. & Gynec. Brit. Emp., 47: 206-212, April, 1940.
15. Gerin-Lajoie. Union Med. du C n d, 68: 384-386 (April).
16. Rabago, Gac. Med. de Mexico, 74: 155-160.
17. Giordano. Semana Med. 2: 1816-1818, December, 1936.
18. Neumann. Monatschr. F. Geburtsch. U. Gynak, 104: 265-275, February, 1937.
19. DeGeus. Zentralbl. f. Gynak., 59: 3030-3034, December, 1935.
20. Lenczowski. Ginek. Polska. 13: 369-379, April, 1934.
21. Rocha Maia. Rev. de Gynec. d'obst. 26: 476-478, October, 1932.
22. Filho. Rev. de Gynec. d'obst. 26: 473-475, October, 1932.
23. Bello. Rev. Med. de Canarias, 1: 159-162, April, 1932.
24. Dartiqueo. Bull. et. Mem. Soc. de Med. de Paris, pp. 260-265, April, 1932.
25. Franchini. Rassegna d'Ostet. e. Ginec., 40: 787-797, December, 1931.
26. Crimeni. Rinasc. Med., 9:42, January, 1932.
27. Modiano. Bull. Soc. d'Obst. et de. Gynec., 20: 228, April, 1931.
28. Schubert. Zentralbl. f. Gynak., 53: 2268-2275, September, 1929.
29. Gerin-Lajoie. Canad M.A.J., 20: 38-40, January, 1929.
30. Neugebauer. Gynaek. Rundschau. 1913, VII, 809.
31. Beck. "Obstetrical Practice" (William & Wilkins, Publishers) 1939.
32. Gruenewald: Am. Jnl. Obst. Gynec. 53: 341-342, February, 1947.
33. Belson, M. O.: Am. Jnl. Obst. Gynec. 53: 883-884, May, 1947.

Changes in Academic Rank

The academic rank of 17 doctors on the staff of the University of Kansas Medical Center was changed, according to a recent announcement by Chancellor Deane W. Malott. All were promotions. The doctors, their new positions and their fields are as follows:

Clinical professorships—Dr. LaVerne B. Spake, otorhinolaryngology; Dr. Buford G. Hamilton, obstetrics and gynecology; Dr. Ferdinand C. Helwig, pathology and oncology.

Associate professorships—Dr. Tom R. Hamilton, pathology and oncology; Dr. Paul W. Shafer, surgery; Dr. Ward W. Summerville, pathology and oncology; Dr. Sylvia Allen, psychiatry and neurology; Dr. E. H. Trowbridge, psychiatry and neurology; Dr. A. M. Ziegler, surgery; Dr. Damon Walthal, pediatrics.

Assistant professorships—Dr. Max A. Allen, medicine; Dr. M. L. Bills, psychiatry and neurology; Dr. G. L. Harrington, psychiatry and neurology; Dr. David Robinson, surgery.

Instructors—Dr. Harry Statland, Dr. T. Reid Jones and Dr. Gordon Voorhees, all medicine.

HORMONE THERAPY IN CANCER OF THE BREAST

Hormone therapy is palliative only, and should never be used in any case of breast cancer in which there is any hope of cure by radical surgery with or without x-ray therapy.

ESTROGENS

The most favorable effects are in soft tissue manifestations of breast cancer in women over the age of 60. Reports of effects on skeletal metastases are not conclusive, although the pain incident to these lesions may be decreased.

The most commonly used agent is diethylstilbestrol given orally in doses of 10-15 mg. daily. Other estrogens, either natural or synthetic, may be as effective.

Contraindications and Warnings: 1. Do not give estrogens to any patient who still menstruates or who has menstruated within a five year period, as doing so will accelerate the rate of growth of the carcinoma.

2. Large doses eventually produce uterine bleeding, and the dosage must then be diminished at least temporarily.

3. Side effects include anorexia, nausea and vomiting, skin eruptions, diarrhea, and edema. Administration should be cautiously carried out in those elderly women subject to cardiac decompensation which may be precipitated by the retention of fluid.

4. Never use estrogens if the lesion is operable.

Anticipated Effects: 1. Regressions in the size of the primary tumor, soft tissue recurrences, lymph node metastases, and pulmonary metastases.

2. Some improvement in general physical condition—increase in appetite, gain in weight, and acceleration of hemopoiesis.

3. There may be a decrease in the pain of skeletal metastases.

4. Relapse after a temporary improvement; estrogens will not cure cancer of the breast.

ANDROGENS

Androgens are useful in cases of bone metastases, regardless of the age of the patient.

The commonly used agent is testosterone proprionate by injection. 100 mg. is given three times a week for 10 weeks, followed by a maintenance dose of 60 mg. of methyl testosterone daily for 10 weeks (Adair).

Contraindications and Warnings: Cases of metastatic bone lesions with a high blood calcium level have been made extremely ill by androgen therapy—nausea, vomiting, and prostration. Blood calcium levels should be determined before starting therapy, and if found to be high should be checked during the treatment.

Anticipated Effects: 1. Relief from the pain (of bone lesions), increased appetite, a gain in weight, and a decrease in the amount of narcotics required to control the pain. (Compare with the effect of castration in cases of prostatic carcinoma with bone metastases.)

2. An increase in the alkaline phosphatase from the normal level of 3-5 units, to one of 15-17 units. This is evidence of repair and regeneration of bone. Excessively high levels (25-50 units) may mean liver damage or metastases.

3. Masculinizing effects may be manifest especially in younger patients, and at times a disturbing increase in sexual desire is noted.

4. Relapses after a variable time, when another course of treatment may be given. Androgens will not cure cancer of the breast or its metastases.

(Prepared by the Committee on the Control of Cancer, in condensed form from the report of the *Subcommittee on Steroids and Cancer* of the *Council on Pharmacy and Chemistry* of the AMA)

ACUTE DIARRHEA IN INFANCY

Diarrhea in infancy should always be considered as potentially severe and treated immediately in order to prevent the development of dehydration and disturbances of electrolytic balance. Management should be carried out as follows:

1. *Determination, if possible, of the cause.* The causes of infantile diarrhea include: Improper feeding, infections of the gastrointestinal tract itself, and infections outside of the gastrointestinal tract (frequently otitis media)
2. *Resting the intestinal tract, followed by giving of food adapted to the limited digestive capacity.*

   Breast fed infants: Omit feedings for 8-12 hours, giving boiled water instead. Then resume feedings, giving a few ounces of boiled water before nursing for the next few feedings. The mother's breasts should be pumped during this period to maintain her milk supply.

   Artificially fed infants: Discontinue all foods for a variable number of hours, depending on the severity of the diarrhea, giving boiled water or 5% glucose solution freely. Then resume feeding with a low calorie formula such as boiled skimmed milk, or raw apple pulp, and gradually build up the diet starting with non-irritating, readily digestible food. Some small infants will tolerate better an acidified skimmed or evaporated milk formula, or powdered protein milk.
3. *Restoration and maintenance of fluid and electrolyte balance.* Severe diarrheas with dehydration, and those not responding to simple treatment will require a longer period of starvation and the replacement by parenteral fluids of water and electrolytes lost:
   1. 10% Dextrose in distilled water intravenously (10 cc. per pound of body weight for each infusion) and Hartman's Solution or normal saline subcutaneously (15-20 cc. per pound for each clysis).
   2. In cases of very severe dehydration, Darrow's sodium-potassium-lactate solution is an important addition, but must be given slowly and with full knowledge of its action.*
   3. When severe acidosis is present, 1/6 Molar Sodium Lactate solution should be given, the amount being determined by the following formula: normal serum CO_2 less the patient's serum CO_2 times body weight in pounds equals cc. of 1/6 M. sodium lactate solution, given over a period of several hours.
4. *Supportive treatment.* Oxygen. Plasma and blood transfusions (but blood should not be given until dehydration has been corrected). All vitamins, if parenteral therapy is prolonged.
5. *Drug therapy.*

   Parenteral infections should be treated with penicillin (10,000-25,000 units in aqueous solution every 3 hours or 100,000-300,000 units daily of one of the more slowly absorbed preparations) or, after dehydration has been corrected, sulfadiazine (½ grain per pound initial dose, 1 grain per pound per day thereafter), as indicated.

   Bacillary dysentery should be treated with sulfadiazine or one of the non-absorbable sulfonamides. It is suspected when blood and pus appear in the stools, and proved by stool culture.

   Cathartics are usually contra-indicated. More than one dose should never be given.

   Paregoric should not be given to small infants, or to any infant during the acute toxic phase or in the presence of distension.

   Bismuth is of questionable value and in any case should never be given as the subnitrate because of the danger of nitrite poisoning (methemoglobinemia).

   Various pectin preparations are harmless and may be effective in mild cases.

* A review of Darrow's work is available on request from the Committee on Child Welfare which may be addressed in care of this Journal.

PRESIDENT'S PAGE

Dear Doctor:

Do you realize that this year is one-third gone?

Things are shaping up very well. There is every indication for plenty of activity in medical affairs following summer vacations.

The Council will meet in September with a full agenda. Several committees will be meeting or holding repeat meetings during that month.

One of the most important meetings scheduled for September will be a conference of all county society presidents and secretaries. The program of each state society committee and other pertinent acts will be presented so that these programs may be activated in each local society.

Some thought is being given to the establishment of a "Sunflower Heart Conference" in Kansas, comparable to the Rocky Mountain Cancer Conference which has proved so highly successful. I would be happy to hear your reaction to the idea.

The postgraduate section of the Medical School Committee, working in conjunction with Dean Murphy's committee from the medical school, is completing arrangements for what appears to be a most attractive series of graduate training courses at the University Medical Center, plus a circuit series of refresher courses to be presented at convenient centers over the state during the fall and winter months.

I am hoping that arrangements can be made for joint meetings of the surrounding societies at each of these centers, at which time I will try to meet with each group and discuss state society matters of interest.

On numerous occasions one hears the comment made that a law should be passed to prevent this or that group from using the title "Doctor" before their names. Wouldn't it be a good idea for each M.D. in the state to set an example of such dignity by ceasing to sign his name "Doctor .....," by having the "Doctor" removed from his office sign or stationery and properly using the "M.D." for all purposes.

You will be pleased to learn of the progress made in the interests of Blue Cross and Blue Shield at a recent meeting of a joint executive committee of the two boards. Basic operation policies were outlined which will enhance the program immensely.

Political battle lines have been drawn throughout the state and over the nation. Now is the time to lend your influence to the candidate you KNOW will be considerate of your interests.

We are heading toward our 90th anniversary meeting in which we hope we can feature our past presidents and celebrate many accomplishments of Kansas medicine.

Sincerely yours,

W. Davidson M.D.

President.

EDITORIALS

Streptomycin

During recent weeks a number of scientific articles have appeared in medical journals to warn the profession of the dangers of the use of streptomycin. The following information represents a summary of two of these articles, the first entitled "Streptomycin" by Hirsh et al appearing in the June 1948 Medical Annals of the District of Columbia and the second, "Streptomycin Therapy of Tuberculosis," by Farber et al appearing in the July 1948 issue of California Medicine.

Since its discovery in 1944 streptomycin has been clinically tried in a sufficient number of cases to permit an evaluation of its usefulness. The response of acute tularemia to small doses of streptomycin (0.4 to 2.0 Gm. daily) is undoubtedly the most dramatic accomplishment of this drug. It appears that good response has been recorded in its use in the treatment of shigella infections and cholera. It has been used as an adjunct in the treatment of venereal disease, but has been strikingly ineffective in the treatment of typhus infections, the salmonella infections and in brucellosis.

Foremost interest in this drug arose from early reports that streptomycin inhibited the growth of tubercle bacilli in vitro and that tuberculous infection in guinea pigs was retarded. Some hundreds of human patients have now been treated (543 cases reported in November 1947) and the picture is still uncertain.

Streptomycin is not recommended for primary phase tuberculosis or its re-infection stage. It is of doubtful value in moderately and far advanced pulmonary tuberculosis, and results for such conditions as osseous tuberculosis, tuberculous lymphadenitis, enteritis, etc., have been so variable that no recommendations can be made at this time.

In cases with fibrous or caseous lesions streptomycin has little effect but appears to be most useful in exudative pulmonary tuberculosis, except where this is only part of a terminal phase of overwhelming infection. The drug may have real merit and find a permanent place in medicine, but the time for its general use has certainly not yet arrived, stories found in lay magazines to the contrary notwithstanding.

The use of streptomycin is dangerous. Tubercle bacilli become resistant to streptomycin. In one series 95 per cent resistance was recorded after from 90 to 120 days use in human patients. It has been observed as early as the 35th day. From present indications it appears that this is permanent and that further use of streptomycin will be ineffective.

A second problem is the extreme variability of its usefulness and the fact that relapse after completion of treatment is frequent. Clinical experience has not borne out the promise suggested by results in vitro. Even for conditions where the use of streptomycin seems to be indicated there are enough individual failures and relapses to leave considerable doubt as to its general value.

The third danger, and certainly not the least important, is the number of serious toxic reactions that occur during treatment. Local irritation is annoying but less frequent since the product has been purified, and by adding one per cent solution of procaine hydrochloride to the streptomycin solution this can generally be controlled.

There is, however, a definite irritation to the meninges, which may result in serious and perhaps irreversible reactions without significant early symptoms. Damage to vestibular function occurs in almost all patients receiving streptomycin in prolonged courses and the majority of cases will never recover from that loss. Patients may experience difficulty in walking in the dark. Some will partially compensate in time, but the process is slow. Loss of hearing is another complication resulting too frequently to be dismissed without consideration. This may progress to total deafness and is presumably permanent.

Streptomycin therefore is not yet recommended for general or frequent administration. The physician should weigh the dangers of its use against the urgency of its need. While loss of vestibular function is not of serious import to the average patient in comparison with the disease for which streptomycin would properly be administered, it is serious enough to cause the physician to use this drug with caution.

Sludged Blood

There appeared in Science for November 7, 1947, an article by Melvin H. Knisely, Edward H. Block, Theodore S. Elliot and Louise Warner, entitled "Sludged Blood." The reporting of this scientific discovery marks a great milestone in the science of medicine. This report also culminates 15 years of intensive work on the problem of intravascular agglutination, a universal natural phenomenon occurring in all veterbrates whenever a pathological disturbance occurs.

Knisely and his co-workers utilized over 3500 healthy frogs, 1000 salamanders and 500 laboratory mammals substantiating their discovery. They observed sludged blood in 600 human patients suffering from 60 different well diagnosed diseases.

Fifty healthy unanesthetized medical students were used as normal controls. The validity of the results cannot be questioned. Unusual as it may sound, our profession should not object to the terminology "sludged blood" for that phrase describes intravascular agglutination. It is a term borrowed from the oil industry that the layman understands, and the medical profession is interested in educating the public. This type of education is necessary for a well planned preventive medicine program in our state or elsewhere. Knisely's article in Life magazine (May 31, 1948) is an excellent example of popular education so vitally needed in the medical field.

Sludged blood was found in all patients (so far studied) suffering from a common cold to those with chronic disease. It is produced locally by small irritations. It is also found in all surgical cases to a small or large degree. Knisely frankly states that the cause is unknown. The problem now before us is to prevent and break up the sludge when it appears. Sludging damages tissues by depriving them of oxygen and food. This may be acute or it can act accumulatively. The accumulative effect may hasten the aging process. Clearing up of sludges would then hold back senility. There are numerous problems to be solved in this most universal prevailing condition. We know now that our dis-ease and malease are caused, to a great extent, by sludge. We have also overlooked a very fundamental fact that the sludge symptoms have overshadowed the underlying pathology and its symptoms. Future investigations in the field of sludged blood will be an attempt to clear up the sludge in order that the diagnostician may clearly see the underlying pathology. *—Paul G. Roofe, Professor of Anatomy, University of Kansas.*

Postgraduate Education Fund

Continued interest has been evidenced in the Kansas Medical Society's postgraduate education fund, and Dr. Harold H. Jones of Winfield, chairman of the Sub-committee on Postgraduate Education, has prepared an outline of the action that has been taken since the fund was established at the start of World War II. Dr. Jones has served as chairman of the group since the plan originated, and the Society is indebted to him for many hours of work on the project.

The committee was originally set up by the Council for the purpose of establishing a continuous program of graduate education, but later provided that the fund subscribed by members of the Society on a voluntary basis was to be distributed exclusively among returning servicemen, to be applied toward expenses of graduate education.

This program, unique among medical societies of the United States, had a two-fold purpose; first, to recognize the differential between civilian and military practice, and, second, to express appreciation to those physicians who entered military service from Kansas. The committee estimated that an average of 12 weeks refresher work would be required by physicians who were returning to civilian practice after having served in the armed forces. All members realized that the fund would not be large enough to defray complete costs of such courses, but it was felt that the stipend would express the appreciation of the Society for the sacrifices made by physicians who gave up civilian practice and spent from one to four years in military service.

From approximately 1,000 members of the Society who retained civilian status during the war, a fund of about $50,000 was contributed. Benefits from the fund were scaled to conform to the length of time required for the refresher course chosen by each physician. To date, grants from the fund have been paid to 122 physicians. The committee will continue to receive applications for benefits until January 1, 1949, after which time, in accordance with a decision made by the Council, no further grants will be authorized.

Since this educational benefit was available to all medical officers who returned to Kansas after service in the armed forces, it was suggested that a grant of some kind be provided for the widows and dependents of medical officers who lost their lives in service, and in 1947 the House of Delegates asked the committee to investigate this possibility. The committee complied and reported its findings to the House of Delegates at its first meeting in 1948, recommending that approximately $3,600 be appropriated from the postgraduate fund for grants to the families of several physicians who died while serving in the armed forces. The House unanimously approved the expenditure and provided for a year-to-year review of the project so that additional funds may be appropriated in the future if necessary.

The Kansas Medical Society takes a special pride in this project since no other professional organization in the United States has reported similar action, either for the token remuneration of the returning medical officer or for grants to the widow of a physician who lost his life in service. The generosity of those who created the fund reaffirms the ideal that medicine is a profession, not a business.

Certain lessons can be learned from the work of this committee. Educators throughout the nation who have been familiar with the ideals of the Society and the existence of this postgraduate education





amebiasis

. . . now endemic in the U. S.?



Formerly considered a tropical disease, amebiasis is more recently reported[1, 2] as "extremely common" and even "endemic" in this country.

Because early treatment has such an important bearing on prognosis, investigators stress the importance of prompt recognition through careful stool examination.

Destructive to the cysts of Endamoeba histolytica and especially valuable in sterilizing "cyst-carriers" is the high-iodine-containing amebacide, DIODOQUIN.

Diodoquin[3] "is well tolerated.... It can readily be taken by ambulant patients and, therefore, eliminates the necessity of hospitalization."

SEARLE ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION **DIODOQUIN®**

(5, 7-diiodo-8-hydroxyquinoline)

RESEARCH
IN THE SERVICE
OF MEDICINE

1. Chalgren, W. S., and Baker, A. B.: Tropical Diseases: Invalvement af Nervaus System, Arch. Path. 41:66 (Jan.) 1946.

2. Brawne, D. C.; McHardy, G., and Spellberg, M. A.: Statistical Evaluatian af Amebiasis, Gastraenteralagy 4:154 (Feb.) 1945.

3. Mansan-Bahr, P.: Same Tropical Diseases in General Practice: "A Past-War Legacy," Glasgaw M. J. 27:123 (May) 1946.

fund, have urged that the Society continue this experiment, having in mind a more or less continuous postgraduate educational program. Surveys are now being made with this possibility in mind and the committee will issue a complete report at the next meeting of the House of Delegates.

Committee Appointments

Committee appointments for the year 1948-1949 may be found on Page VIII of this issue of the Journal. The chairmen and many complete committees were appointed several months ago but publication of the official list was postponed until it could be accurately set up in its entirety.

The problem of appointing committees is the first that confronts a president upon his inauguration. Each president attempts to take geographical distribution into consideration along with the selection of individuals whose interest and experience will contribute to the projects studied. This year Dr. Davidson wrote the secretary of each component society asking for suggestions. All replies were carefully studied and in virtually every instance the suggestions were accepted.

It will be noted that some committees are larger this year than they have been in the past. It is Dr. Davidson's hope that committee activity will play a greater part in society functions for the coming year. Tentative projects for each have been prepared and sent to the chairmen. Many committees were given detailed assignments which will be broken down into sub-committees, each concentrating on a special task. By way of example, five important sub-committees are now functioning under the Committee on Allied Groups. There are three in the Committee on Mental Health and several under the Committee on Anesthesiology. With the coming of cooler weather, these committees will meet and several others will organize in similar fashion.

The projects undertaken by the Kansas Medical Society that have been truly important have virtually all stemmed from committee action. During the coming year the Society will hear much of other projects that are now being prepared. At least five of these new committees have already been in session during the summer and several have begun planning toward activities in which they hope ultimately to have the cooperation of every member of the profession. As these projects are developed and approved by the Council, they will then be reported in detail for adoption by the membership.

New Doctors of Medicine

The Kansas State Board of Medical Registration and Examination announces that 59 new doctors of medicine were licensed to practice in Kansas as the result of examinations given June 9 and 10 and at the same time 35 physicians were granted licenses by reciprocity.

A list of those who successfully passed the examination follows: Gloria M. Allen, Burbank, Calif.; Irving W. Bailit, Brockton, Mass.; Ernest L. Bauer, Benton, Ill.; Leon L. Bernstein, Topeka; Doris M. Bixby, Valley Center; Victor E. Bolton, Abilene; William R. Brown, Kansas City; James R. Burwell, Kansas City; James P. Calkins, Kansas City, Mo.; James P. Carey, Pickens, S. C.; Robert F. Cavitt, Wichita; Jack W. Clapper, Kansas City; Harold N. Clark, Jr., Kansas City, Mo.; Franklin D. Close, Jr., Forestville, Calif.; Charles S. Davis, Galena; Robert W. Doering, Emporia; Robert W. Edwards, Lawrence; Gustave Eisemann, Kansas City, Mo.

Billy D. Ferguson, Mission; Harry G. Gianakon, Hutchinson; Wallace W. Gist, St. Francis; Wendell L. Good, Perry; Sebel V. Hands, Garden City; William N. Harsha, Topeka; Robert E. Hull, Wichita; John W. Jacks, Coats; Donald W. Jackson, Cincinnati, Ohio; Chester L. Klein, Lawrence; Glenn A. Lessenden, Lawrence; Franklin M. Lockwood, Kansas City, Mo.; Paul T. Luckenbill, Kutztown, Pa.; Rensselaer W. McClure, Jr., Lawrence; Dean M. Miller, Kansas City; Don R. Miller, Kansas City; Luciel C. Nance, Kansas City; Robert A. Nelson, Tulsa, Okla.; Kay K. Ota, Kansas City; Jack W. Passmore, Concordia; John R. Patterson, Kansas City; Lew W. Purinton, Pleasanton.

Bethel L. Reimer, Independence, Mo.; Warren R. Rupper, Provo, Utah; Veryl D. Schwartz, Wichita; Hampton W. Shirer, Topeka; Marvin M. Somers, Kansas City; Robert D. Stewart, Wamego; Joe L. Stockard, Lees Summit, Mo.; Robert P. Stoffer, Topeka; Ben Storer, San Antonio, Tex.; Frank J. Strick, Jr., Kansas City; Roland D. Stucky, Reedley, Calif.; Forrest D. Taylor, Hill City; Christopher Y. Thomas, III, Pittsburg; Wayne K. Tice, Kansas City; Charles W. Wahl, Louisiana, Mo.; Dorothy S. Waterman, Kansas City, Mo.; James R. Weaver, Wichita; Karl T. Wolf, Kansas City; Robert W. Wright, Jr., Kansas City.

Licenses by reciprocity were awarded to the following: Glen K. Arney, Topeka; Jerome E. Bleicher, Wichita; Harold S. Bowman, Wichita; Harold W. Brooks, Wichita; Francis P. Cawley, Hooker, Okla.; Fenwick W. Chappell, Topeka; Frederick H. Chard, Wichita; Donald J. Cronin, Wichita; Wallace C. Ellerbroek, Wichita; Nicholas J. Ellis, Croswell, Mich.; Matthew R. Fitzpatrick, Kansas City; Phillip E. Getscher, Wellington; Kenneth L. Graham, Leavenworth; Creighton A. Hardin, Kansas City; Paul D. Hess, Kansas City, Mo.; Edwin R. Jacka, Ann Arbor, Mich.

Robert J. Kinney, Topeka; Harry A. Knauff, Syracuse; John O. Kennedy, Topeka; Raymond W. Latham, Kansas City, Mo.; Anson S. Lutgen, Colby; Herbert P. MacNeal, Topeka; Elbert L. McCorkle, Horton; Norman C. McCubbin, Concordia; Ernest Marcus, Topeka; Joseph A. Masaryk, Sharon, Pa.; Ray T. Parmley, Wichita; Frank I. Ridge, Kansas City, Mo.; Robert E. Stowell, Kansas City; Erling B. Struxness, Hutchinson; Ellsworth H. Trowbridge, Jr., Kansas City, Mo.; Edgar W. Warren, Topeka; Charles M. White, Wichita; Samuel Zelman, Topeka; Henry D. Moorman, Winfield.

Annual Session May 9-12, 1949

The 1949 annual meeting of the Kansas Medical Society will be held at Topeka, May 9-12. Members of the Shawnee County Medical Society will be hosts for the session.



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EXECUTIVE OFFICE

Material for this column is taken from articles coming to the attention of the Executive Office. They may concern controversial issues and will not necessarily reflect the editorial opinion of the Journal. Articles republished or summarized here are presented because it is believed they will be of interest to the medical profession in Kansas.

Hospital Construction in Kansas

A recent pamphlet published by the Kansas State Board of Health describes the Kansas plan of hospital construction. In it are listed the current priority ratings of the various areas and much other information concerning the general subject. Physicians especially interested in this material may obtain copies of the pamphlet from Dr. F. C. Beelman.

A report from national sources indicates that 46 states and territories already have state-wide plans approved, involving 272 individual projects. These include 244 hospitals, 23 health centers and five auxiliary facilities. It is of interest to know that only 23 of these hospitals will have 100 beds or more and that by far the greatest number are under 50 beds. Another portion of the announcement indicates that the smaller communities will receive the bulk of the funds under the federal program and that projects have been approved in only 10 towns in the United States with a population of 50,000 or more. Ninety-three are in communities with less than 2,500 people. The above statistics include information as of May 15, 1948, and may be somewhat changed since that time.

The Kansas plan follows largely along the national trend according to information in this pamphlet. It has been estimated by the Kansas Advisory Hospital Council that the state should have an additional 3,089 general hospital beds. Many of these are needed in sparsely settled areas. There is also a need for approximately 4,000 additional psychiatric beds, 3,500 chronic beds and 500 beds for tuberculosis patients. In addition to that, it has been estimated that where Kansas now has 16 full-time health units, there should be 32 in the state.

At least half of the total hospials in Kansas have 25 beds or less, of which 27 per cent are reconverted residence dwellings. Of all Kansas hospitals, one-third are considered fire hazards and about one-fourth of the total are 40 or more years old.

State-wide planning hopes to prevent over building but at the same time to insure adequate hospital facilities for everyone. Procedure under that plan has been to divide the state into three types of areas. There are only two of the first kind, or base areas, in Kansas. They are Kansas City and Wichita. Of the second type Kansas has 11 areas, and all remaining portions of the state are of the third or rural classification. Selection of locations and priority ratings has been made on the basis of population distribution, transportation facilities, the location of trade centers and the distribution of physicians.

With that in mind and being governed by federal regulations imposed in the Hill-Burton bill, the Advisory Council has now given priority ratings to all counties in the state. These are rated alphabetically with Group A representing the highest priority. Five areas have been so designated in Kansas, being considered now to have 29 per cent or less of their normal hospital needs. Group B includes areas that have some 30 to 49 per cent of their hosipital needs, of which there are nine in Kansas. There are five areas under Group C, rated between 50 and 59 per cent. Group D represents those areas having 60 to 69 per cent of their normal complement of hospital beds, comprising seven areas, and the last group, E, containing 14 areas, has between 70 and 100 per cent of the hospital facilities that appear to be necessary. In the latter group are three rated at 100 per cent. The location under Group A that is given first priority is recorded as now having only 18 per cent of the hospital beds necessary within that area.

Of interest also are the various rules and regulations of the Kansas hospital construction program. A general description of the proposed plan was first published in the Topeka Daily Capital and the Topeka State Journal of October 14, 1947. A public hearing was held on October 27, 1947. The state plan was approved by the United States Public Health Service on January 20, 1948. A project construction schedule will now be formed and the first units under this program may be built. These will be determined after consideration of the priority of the project, the intention of the sponsoring agency to begin construction within a reasonable length of time, the ability of the sponsoring agencies to meet their obligations, and finally with a view toward maintaining an appropriate balance of the various categories such as general, tuberculosis, mental, chronic disease hospitals and public health centers. Whenever a project is removed from the project construction schedule, the next highest priority will replace it. In this action the project that was removed will not necessarily lose its priority rating but may only face postponement of actual construction.

Other details concerning records and reports are included, and an explanation of the manner in which appeals may be made from the decision of the Advisory Council is also given. Maps identifying the various areas give the priority ratings of each location. In general, it is an analysis of Kansas' plan to utilize the money appropriated under the Hill-Burton act for hospital construction. It is Kansas' plan to provide the people of this state with scientifically designed hospital facilities. The pamhlet itself contains much information on this subject and represents a project that has taken a vast amount of effort, much of this having been contributed for the benefit of the people of Kansas by members of the medical profession.

Committee on Nursing Reports

A change in the present method of training nurses was recently recommended by the American Medical Association committee appointed to study the problem, according to a report submitted to the A.M.A. House of Delegates at its Chicago meeting in June. The recommendation called for two main groups, the professional nurse and the trained practical nurse.

The committee also recommended correction of economic problems affecting both nurses and patients. It reported that steps should be taken to provide social security and retirement plans for all nurses, and suggested that hospitals adopt definite personnel policies for all institutional nurses so that their salaries, hours, sick leave and vacations would be comparable to those granted in other fields of endeavor for women with equivalent education and training.

The addition of prepaid nursing care to existing prepaid hospital and medical care plans was recommended to benefit the patient.

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BIBLIOGRAPHY: 1. United States Dispensatory, ed. 24, Philadelphia, J. B. Lippincott Company, 1947, p. 1446. 2. Wiesbader, H., and Filler, W.: Am. J. Obst. & Gynec. **51**:75, 1946. 3. Allen, W. M.: South. M. J. **37**:270, 1944. 4. Lyon, R. A.: Am. J. Obst. & Gynec. **47**:532, 1944. 5. Groper, M. J., and Biskind, G. R.: J. Clin. Endocrinol. **2**:703, 1942. 6. Soule, S. D.: Am. J. Obst. & Gynec. **45**:315, 1943.

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MEMBERS

Dr. L. E. Maker has resigned from the staff of the Topeka State Hospital because of illness and is spending the summer in Fort Collins, Colorado.

* * *

Dr. J. H. A. Peck, St. Francis, announces that Dr. W. W. Gist is now associated with him in practice. Dr. Gist, who served in the Navy medical corps for three years, recently finished a residency in surgery and obstetrics at St. Joseph's Hospital, Denver.

* * *

Dr. J. Richard Nolan, who recently was released from the Army medical corps after 22 months service in the Philippine Islands, has announced the opening of an office for general practice in Kansas City.

* * *

Dr. Glenn Q. Street, Jr., Wichita, was elected a member of the American Psychiatric Association while attending its annual meeting in Washington, D. C., in May.

* * *

Three brothers, Dr. James D. Bowen, Dr. Harry J. Bowen, Jr., and Dr. Clovis W. Bowen, all of Topeka, have announced formation of a partnership for the practice of medicine, surgery and anesthesia.

* * *

Dr. Roy Moser and Dr. Ernest Moser, Holton, announce that their cousin, Dr. Ross Moser, is a new member of the staff of the Holton Hospital. Dr. Ross Moser received his medical education at the University of Kansas, interned at Research Hospital in Kansas City, and served in the Navy during the war.

* * *

Dr. M. E. Schulz, formerly of Wichita, has moved to Russell and is associated in practice there with Dr. F. S. Hawes, Dr. F. N. White and Dr. W. J. Pettijohn.

* * *

Dr. Paul H. Grubb recently opened an office for practice in Galena. He was graduated from the University of Kansas School of Medicine in 1945, served an internship at St. Margaret's Hospital in Kansas City, and then spent three years in the Army medical corps.

* * *

Dr. C. R. Schmidt of the Hertzler Clinic, Halstead, was recently elected to membership in the American Association for the Study of Goiter.

* * *

Dr. Bernice Havley, Centralia, went to New York last month to take a postgraduate course in surgery.

* * *

Dr. H. L. Graber, Nickerson, has been appointed local surgeon for the Missouri Pacific railroad.

* * *

Dr. Howard E. Marchbanks, son of the late Dr. Howard Marchbanks of Pittsburg, was released from the Army several months ago and has joined the staff of the Smith Clinic at Pittsburg. He will limit his practice to obstetrics and gynecology.

* * *

Dr. Frank A. Rieke, who recently completed a two and one-half year residency in surgery at St. Margaret's Hospital, Kansas City, has opened an office in Kansas City.

* * *

Dr. J. D. Bowen, Topeka, was recently reappointed to the state hospital advisory council by Governor Frank Carlson.

Dr. Harle V. Barrett of Independence, who has been serving as Montgomery County Health officer, moved to Topeka August 1 to become assistant to the chief health officer at the city-county health department.

* * *

Dr. Claude C. Tucker, Wichita, prepared a discussion on a paper, "Lymphomas of the Anorectum," by Dr. Emil Granet of New York for presentation at the A.M.A. meeting in Chicago in June.

* * *

Dr. Victor Hildyard and Dr. D. G. Laury, Baldwin, will open an office in Overbrook soon to provide medical service there several days a week.

* * *

Dr. Karl Menninger, Topeka, has resigned as manager of Winter Veterans Administration Hospital, a post he has held since December 1, 1945, and is now senior consulate and chief of the dean's committee at the hospital. Dr. J. F. Casey, who has been serving as chief of professional services, is now manager of the hospital.

* * *

Dr. H. Wallace Lane, formerly of Lawrence, has been named Butler County health officer.

Golden Belt Society Meets

The Golden Belt Medical Society met at the Manhattan Country Club July 1. Dr. Max G. Berry, Kansas City, discussed "Coronary Artery Disease," Dr. David Robinson, also of Kansas City, spoke on "Treatment of Burns," and Dr. C. F. Taylor of Norton presented a paper on tuberculosis. The next meeting of the society will be held in October.

Magazine Salesman Not Physician

Reports have reached the executive office that a young man soliciting magazine subscriptions in Kansas has been representing himself as a medical school graduate who plans to practice in this state upon completion of a year's internship. In one locality in which the only physician plans to retire soon, the salesman implied that he expected to open an office there on the doctor's retirement. The story has been proved false, and any physician who learns of such activity in his community is asked to notify the sheriff of that county.

Society of Anesthesiology Sponsors Meeting

The Kansas State Society of Anesthesiology, with the cooperation of the Saline County Medical Society, will hold a one-day meeting at the Lamer Hotel, Salina, on Thursday, September 9, with a scientific session beginning at 2:00 p.m. A dinner will be served at 6:00 p.m.

The day's program will include two papers by Dr. Albert Faulconer of the Mayo Clinic, Rochester, Minnesota. The first will be "Selection of the Agent and Method," to be followed by "Some Factors Influencing the Administration of General Anesthesia." Dr. Charles A. Baker, of the University of Kansas Medical Center, Kansas City, will discuss "Post-Cyclopropane Hypotension—Report on a Series of 544 Cases," and Dr. Harold Hyndman, Wichita, will speak on "The Blood Bank Program in Kansas." The scientific program will be concluded with a discussion on "Saddle Block Anesthesia" by Dr. Ray Parmley, Wichita.

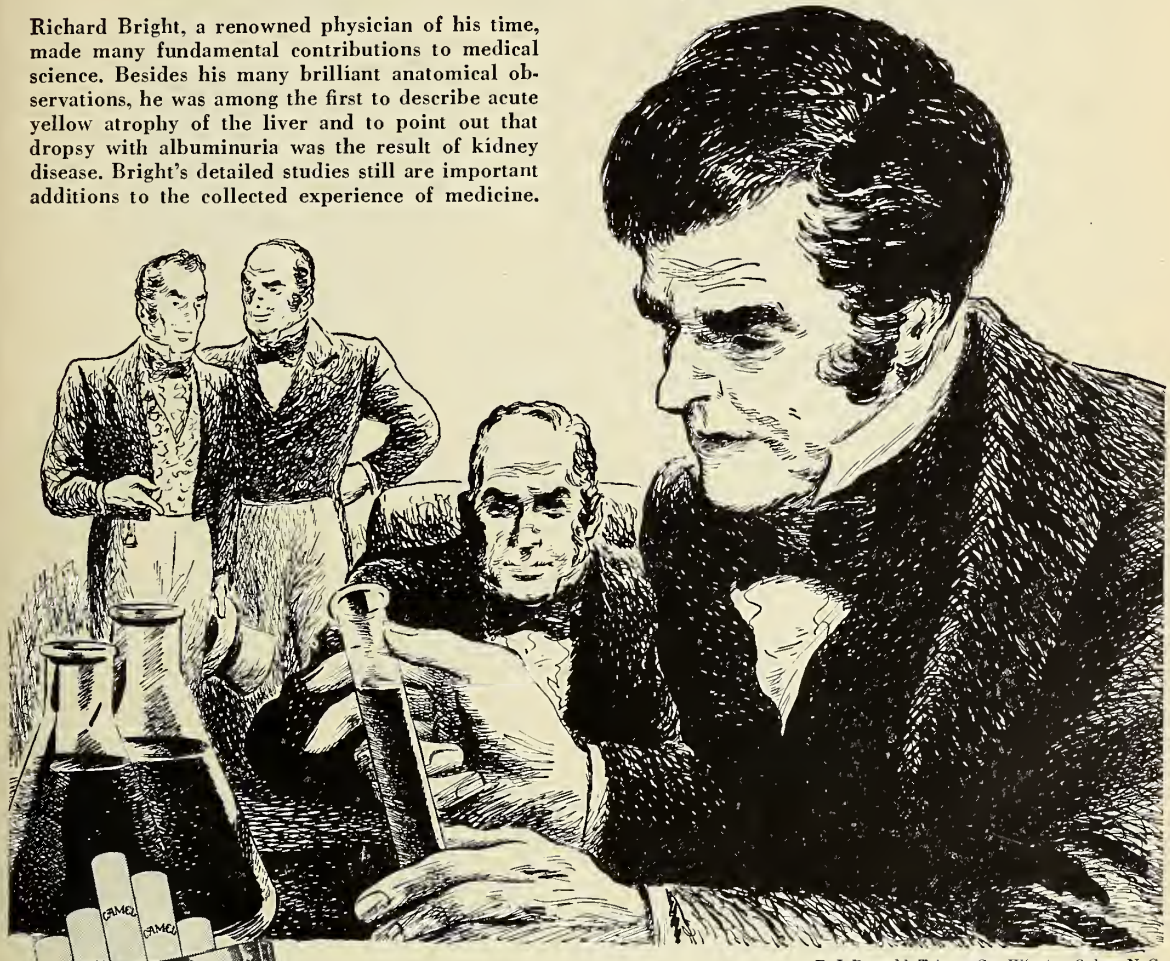
The Society of Anesthesiology will also hold a business meeting and will elect directors. Mr. Clarence G. Munns, Topeka, will discuss economic phases of anesthesia.

Reservations for the dinner should be made with Dr. E. E. Harvey, National Bank of America Building, Salina, Kansas, on or before September 7, 1948.

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Use of Artificial Appliances

Editor's Note. Physicians who have provided services to handicapped persons under the program of the Kansas Division of Vocational Rehabilitation will be interested in the following report on the use of artificial appliances. The material was prepared for the Journal by Mr. Miles Pulford, supervisor of the division.

The Kansas Division of Vocational Rehabilitation, like most of the rehabilitation agencies of other states, has been concerned with the use clients make of artificial appliances furnished by the division.

In Kansas, facilities have not been available for use in assisting clients in learning how to obtain maximum use of their appliances. Division consultants have tried to assist clients in learning to use the appliances, but this method has not always been satisfactory due to the length of time elapsing between contacts with the clients.

In order that an evaluation might be made of the services of providing artificial appliances, the division conducted a survey of this service to determine whether the clients were, or were not, using their appliances, and whether they were wearing them on the job, or while they were taking on-the-job training.

The survey covered the period from July 1, 1946 to July 1, 1947. During the period, the division assisted 87 clients in securing appliances. Of this number, 62 were men and 25 were women. Prostheses provided were 47 artificial limbs, five dentures, 20 hearing aids, two artificial eyes and 13 pairs of glasses. Results of the survey showed that 82 of these were in use and five were not.

Seventy-four clients were employed, or in training, eight were adjusting to the use of the appliances, and five were unemployed. The total amount of money spent on these 87 individuals for services was $31,106.67. The 74 clients employed were earning monthly salaries totaling $8,564.83, or $102,778.02 per year.

In comparison with the amount spent by the division in furnishing appliances and other services for these clients and the monthly income earned by the clients, it would seem that the sum of $31,106.67 spent by the state of Kansas has been worthwhile, as the service furnished has made it possible for the individuals to become assets rather than liabilities to the state. They are now taxpayers, and, as taxpayers, are taking an active part in building better communities and a better state.

Dr. W. Olin Clark Dies

Word has been received in Kansas of the death of Dr. Willard Olin Clark, 62, of Lewiston, Idaho, on June 1. Dr. Clark is well known here as he was graduated from the Kansas Medical College, Topeka, in 1912 and was the last physician to intern at Christ's Hospital, Topeka. After several years residency at the hospital, he took postgraduate work in Philadelphia, New York, Vienna and Budapest, specializing in surgery. He had practiced in Lewiston for 28 years.

New Officers of A.M.A.

The officers of the American Medical Association for the year 1948-1949 are as follows: president, Dr. R. L. Sensenich, South Bend; president-elect, Dr. Ernest E. Irons, Chicago; vice president, Dr. Roy W. Fouts, Omaha; secretary, Dr. George F. Lull, Chicago; treasurer, Dr. Josiah J. Moore, Chicago; speaker, Dr. Francis F. Borzell, Philadelphia. New trustees elected are Dr. Gunnar Gundersen, LaCrosse, Wis.; Dr. Edward S. Hamilton, Kankakee, Ill., and Dr. Walter B. Martin, Norfolk, Va.

Every visit to the clinic or the doctor's office, every visit by the public health nurse, is health education, for the visit provides the most powerful type of learning, namely, experience. If the experience is not satisfying, there will be a tendency to avoid seeking health and medical care the next time that the individual or a member of his family needs it.—Pub. Health Rep., Nov. 14, 1947.

DEATH NOTICES

GEORGE ALBERT LANDES, M.D.

Dr. G. A. Landes, 67, a member of the Labette County Medical Society, died at Parsons June 24. He had practiced there since 1915, specializing in eye, ear, nose and throat work. Dr. Landes was graduated from Rush Medical College in 1904 and first served with the federal Department of the Interior as a physician and surgeon. During World War I he was a captain in the army medical corps.

* * *

LEWIS SHEPARD FISHER, M.D.

Dr. L. S. Fisher, 65, who had practiced in the Argentine district, Kansas City, for the past 30 years, died at his home there June 26. After his graduation from the University of Kansas School of Medicine in 1907, Dr. Fisher opened an office in Rice County and practiced there until he entered the army medical corps in World War I. In Kansas City he served on the staffs of Bethany and Providence Hospitals.

* * *

LOUIS MONROE TOMLINSON, M.D.

Dr. L. M. Tomlinson, 59, who practiced in Topeka and in the Harveyville and Dover communities, died at Topeka July 1. He was a member of the Wabaunsee County Medical Society. Dr. Tomlinson was graduated from Kansas Medical College, Topeka, in 1913 and opened an office in Harveyville immediately. He returned to Harveyville after serving in World War I, and maintained an office there until his death, although he moved to Topeka in 1945 and practiced there and in Dover also.

* * *

EDWARD LAWRENCE ASBELL, M.D.

Dr. E. L. Asbell, 75, who had practiced in Kansas City more than 40 years, died at his home there July 3. He was an honorary member of the Wyandotte County Medical Society and had once served that society as president. He was graduated from the St. Louis College of Physicians and Surgeons in 1896 and practiced for several years at Humbolt, Illinois, before opening his office in Kansas City. During World War I he served in the army medical corps.

* * *

WILLIAM FRANCIS BOWEN, M.D.

Dr. W. F. Bowen, 75, a past president of the Kansas Medical Society, died at his home at Topeka July 25. A graduate of the Kansas Medical College, Topeka, in 1898, Dr. Bowen began practice in Topeka and was active in medical affairs until his retirement several years ago. He served as chief of staff at Christ's Hospital, Topeka, for 30 years, and at one time was president of the Shawnee County Medical Society. He was a fellow of the American College of Surgeons.



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ABSTRACTS

Sarcoidosis

Sarcoidosis: A Review and an Appraisal. Henry E. Michelson, J.A.M.A., 136:16, 1034 (April 17), 1948.

The author who is director of the Division of Dermatology and Syphilology at The University of Minnesota presented this review before the Dermatology and Syphilology Section of the A.M.A. and emphasized throughout his presentation the protean manifestations and the widespread systemic envolvement. The name sarcoidosis he believes if preferable to sarcoid or Boeck's sarcoid since the latter fails to emphasize the probable systemic envolvement.

The following points were also emphasized: (1) The disease is also known as Besnier-Boeck-Schauman's disease, benign lymphogranulomatosis, epitheliod reticuloendothelial granuloma, noncaseating tuberculosis and other less well known synonyms. (2) The disease is systemic, follows a chronic course, has the characteristics of a benign infection, and in most patients the lesions regress and disappear. (3) The lesions may be demonstrable on skin, mucous membranes, superficial and palpable glands, the eyes, by x-ray studies of the small bones of the extremities and the thorax. Though sternal biopsy, blood studies and the electrocardiogram may be helpful, the only positive diagnosis is that made by histological study of tissue. (4) The tuberculin test is not reliable in the diagnosis of sarcoidosis but Kreim's test holds promise. (5) The disease has occurred in infants and the aged, in both sexes and all races. (6) So called sarcoid-like tuberculosis in the American Negro, the author believes should not be included until more is known about it. (7) The etiology of sarcoidosis is not proved and though tuberculosis has been thought by many to be the etiology several differences are pointed out: tuberculosis untreated progresses but sarcoidosis does as well untreated; tuberculosis not infrequently involves the larynx and upper respiratory tract, but sarcoidosis rarely does; sarcoidosis involves not infrequently the parotid, submaxillary and lachrimal glands and may have a rapid febrile course, whereas such a picture is rare in tuberculosis. (8) Other possible etiologic entities discussed are: leprosy, brucellosis, foreign body reaction. (9) Sarcoidosis often involves the heart, kidneys, spleen, thoracic organs, and the liver and in the latter punch biopsy has been helpful. (10) Sarcoidosis rarely occurs in more than one person in a family and no environmental or contact factor has been observed which further contrasts it with tuberculosis. (11) No prodromal signs or symptoms are dependable. (12) Though Vitamin D 2 deserves further trial it is not nor is any other therapy dependable.

In the discussion that followed the paper, Dr. Fred Weidman of Philadelphia and Dr. Arthur Curtis of Ann Arbor made pertinent comments. The former said he preferred the term sarcoid and said he had seen sarcoid reaction in leishmaniasis.—*P.W.M.*

* * *

Cervical Intervertebral Disks

Rupture of the Cervical Intervertebral Disks. Glen Spurling, Jnl. Inter. Coll. Surg., X, 502-509 (Sept.-Oct.), 1947.

In the author's experience the incidence of rupture of an intervertebral disk at cervical levels is about one to 12 as compared with those in the lumbar region. Most cervical disk ruptures occur in patients over 40 years of age, usually at the fifth or sixth interspace (in the ratio of one to two). The clinical syndrome in each instance is quite constant and these are described as follows: fifth cervical disk—pain and paresthesias radiating from neck to shoulder and to the posterior aspect of the thumb; this is aggravated by tilting the head to the painful side. Weakness or absence of the tendon reflex of the biceps muscle. Sixth cervical disk—pain and paresthesias as above except that radiation is to the index and middle fingers and may include the ring finger and tip of the thumb. Weakness or absence of the triceps muscle reflex is found. Plain x-rays in the lateral view usually show narrowing of the intervertebral space, even with the neck hyperextended. Contrast myelography may be necessary. Conservative treatment consists of bedrest with five to 10 pounds halter traction applied continuously. If relief is not obtained in four days, surgery may be necessary. Operative technic is discussed.—*T.P.B.*

* * *

Sympathetic Ophthalmia

The Problem of Sympathetic Ophthalmia. Bernard Samuels, Montgomery Lecture Delivered before Irish Ophthalmological Society at Trinity College, Dublin, May 12, 1947. Amer. Jnl. Oph. (April), 1948.

The historical review of the disease is relatively brief and to the point. Hippocrates mentions the disease in one brief sentence and then it seemingly was forgotten for centuries, receiving scant notice until 1835 when William MacKenzie brought the importance of it to medicine.

The disease is always bilateral; breaking out first in the exciting eye (the primarily injured eye) and afterward in the uninjured eye—called the sympathizing eye. That a disease in one organ should excite an identical disease in a symmetrical organ is a most extraordinary phenomenon in human pathology.

The disease is characterized anatomically by the appearance in the pigmented and highly vascular uvea of an infiltration composed of three elements: lymphocytes, epithelioid cells, and giant cells, this being known as the specific infiltration of sympathetic ophthalmia.

He discusses the similarity and differences between sympathophthalmia and tuberculosis and finally concludes that they are not part of the same process.

In his discussion of accidental injuries of the globe he points out that nearly all the penetrations are in the antero-posterior direction. The region of the ciliary body is the dangerous zone and the more extensive the uveal prolapse, just so greater is the hazard.

In the discussion of surgical openings, he states that "there is no standard operation in ocular surgery that has not had marked against it a case of sympathetic ophthalmia or infection." Cataract extraction heads the list, followed next by operations for glaucoma, the two major sight-saving procedures.

In discussing the theories of pathogenesis he properly discards the transmission by way of the sheaths and chiasma and the optic nerves. The allergic theory brought out by Elschnig in Prague in 1909 and further developed by Woods in Baltimore is presented. He seems to lean toward the virus theory.

The virus has the perforating wound as its point of entrance. Here it lodges in the uvea and produces an irritation which results in the specific infiltration of sympathetic ophthalmia. It spreads from this point to other parts of the uvea of the same eye and thence thru the blood stream to the uvea of the other eye. He thinks the virus has a selective affinity for uveal tissue. The virus may already be in the blood and only after the uvea is traumatized does it lodge and multiply there and take on its selective affinity.



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He brings out the point that an ophthalmic surgeon often delays too long the enucleation of an eye that has not healed properly. In some of our larger hospitals a case or two of sympathetic ophthalmia may occur and then be followed by an interval of freedom.

In the sympathizing eye he calls attention to slight disturbance of vision (very mild blurring); photophobia; tearing; and even failing accommodation. He emphasizes the importance of pupillary adhesions and deposits on the posterior surface of the cornea.

The time to enucleate the exciting eye is:

1. When the fellow eye is irritable even though it be apparently normal;

2. At the discovery of deposits on the posterior surface of the cornea of the uninjured eye;

3. In all cases where the wound is retracted, eyeball is soft and tender and vision is failing.

Sympathetic ophthalmia has been known to set in within 48 hours after the injury, but it may not happen for many years.

When not to enucleate:

1. When the wound heals properly, tension is good and some sight remains and the fellow eye shows no irritation.

2. When the injured eye has some vision after the fellow eye becomes markedly inflamed—the primarily injured eye MAY be the one to retain any sight at all.

3. When both eyes are violently inflamed, it will serve no purpose to enucleate either eye.

4. Do not do an enucleation in the presence of panophthalmitis as patients have died from meningitis following enucleation at such a time.

Medicinal treatment seems of no avail and he mentions the trials with salicylates, mercury, salvarsan, tuberculin, sulfa drugs and penicillin.—*W.B.G.*

ANNOUNCEMENTS

September 7-11—26th Annual Scientific and Clinical Session, American Congress of Physical Medicine, Hotel Statler, Washington, D. C.

September 20-23—15th Anniversary Convention, American Hospital Association, Hotel Traymore, Atlantic City, New Jersey.

Sept. 20-23—Postgraduate Course in Metabolic Disorders, Dallas Southern Clinical Society, 433 Medical Arts Building, Dallas 1, Texas.

Sept. 23-25—16th Annual Meeting, Central Association of Obstetricians and Gynecologists, Shirley-Savoy Hotel, Denver, Colorado. For information write Dr. John I. Brewer, secretary, 24 West Ohio Street, Chicago 10, Illinois.

September 29-October 1—13th Annual Meeting, Mississippi Valley Medical Society, Springfield, Illinois.

October 4-7—26th Annual Fall Clinical Conference, Kansas City Southwest Clinical Society, Kansas City, Missouri.

Oct. 18-22—34th Clinical Congress, American College of Surgeons, Biltmore Hotel, Los Angeles, California.

Nov. 30-Dec. 3—Midwinter Meeting, A.M.A. House of Delegates St. Louis, Missouri.

March 28-April 1—30th Annual Session, American College of Physicians, New York, New York.

MAY 9-12—90th ANNUAL SESSION, KANSAS MEDICAL SOCIETY, TOPEKA, KANSAS.

June 6-10—Annual Meeting American Medical Association, Atlantic City, New Jersey.

Mississippi Valley Society to Meet

The 13th annual meeting of the Mississippi Valley Medical Society will be held at the Abraham Lincoln Hotel, Springfield, Illinois, September 29-October 1, under the prseidency of Dr. Willard O. Thompson, professor of medicine at the University of Illinois College of Medicine. Twenty-five clinical teachers will conduct the postgraduate assembly, and there will be 40 scientific and technical exhibits, round table luncheons, and clinicopathologic conferences. No registration fee will be charged, and all physicians are invited to attend.

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NEUROSES*

Baldwin L. Keyes, M.D.

Philadelphia, Pennsylvania

The management of patients suffering from psychoneuroses varies tremendously not only as related to the nature of the neurosis from which that particular patient happens to be suffering, but depends more often upon the nature of the facilities available to him for adequate treatment and care.

The number of people known to be suffering from emotional disturbances of one kind or another present such a staggering figure that even if all of the doctors in the United States treated nothing but neuroses, there would not be enough doctors working full time to treat more than 12 or 15 patients for one hour a day for a year each, such as is required for orthodox psychoanalytical therapy, which is the perfectionist's method of choice.

It becomes obvious therefore that many methods short of perfection are in use and must continue to be further established for the care of most of our psychoneurotic patients.

Although most psychiatrists tend to follow certain fundamental principles in their understanding and interpretation of neurotic symptoms and emotional manifestations, there is a decided difference in the methods of approach, in the management of patients and in psychotherapeutic procedures. An enormous number of psychoneurotic patients have to depend entirely upon the care of physicians in general practice who, by and large, have been carrying these patients along in an increasingly more satisfactory manner.

Psychiatrists seem to cling to the larger cities so that they are not generally available in many of the smaller towns, and are particularly inaccessible to the rural districts in most areas.

The custom is increasing therefore, for the rural general practitioner to send his patient to the nearest city psychiatrist from whom he then properly expects a complete diagnostic survey, an evaluation and explanation of the neurosis, a practical plan for management, and suggestions for psychotherapeutic procedures, sufficiently practical to allow the family doctor to continue adequate care of the patient, with an occasional revisit to the psychiatrist for follow-up and further suggestions.

This would obviously require that the family doctor have a working knowledge of the major psychopathologic entities and the ability to understand and deal with people. Further it is essential that the psychiatrist be thoroughly practical in the recognition of the difficulties which arise in the handling of such a patient in a busy general practice where the time factor alone presents an important problem.

In discussing any method of treatment for the handling of nervous patients it may be well to keep in mind that all does not depend alone on psychotherapy, and that psychotherapy is not limited only to the interpretation of psychopathology.

The first recognized psychiatrist, Imhoptep, the Egyptian about 4000 B. C., recommended, for those patients who were in distress of mind or soul, that they be taken to quiet watering places to have baths, soothing massage, quiet music and peacefulness around them.

Down through the ages this principle of controlling the environment to lessen stress for the nervous patient has been followed. Weir Mitchell gradually added to this program a more strict form of isolation, prolonged rest, over-feeding and gradual rehabilitation. D. J. McCarthy introduced, in addition to the detailed care of the patient, the careful correction of all physical defects, a moderately active schedule with more rapid physical rehabilitation, and interesting dignified occupational therapeutic measures elected to advance the aptitudes of the particular patient, and thus instill confidence and training toward readjustment. Both Mitchell and McCarthy were intuitively understanding of emotional problems, allowed their patients to talk freely

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and lengthily, and brilliantly aided them in self-understanding and in their problem solving.

In our efforts to develop newer psychotherapeutic procedures, it would be well therefore, for us to profit by the lessons of the past masters, accept and include in our own programs those elements of their techniques which seem now most practical and usable as adjuncts to all psychotherapeutic efforts.

Through the enormous work of Freud and his followers in revealing mental mechanisms and psychopathology, interest has been very largely absorbed in an attempt to understand the dynamics, the motivation and the conflict situation of the neuroses.

Therefore, treatment in psychiatry in recent years has been directed almost entirely to the uncovering of instinctual urges, to the recognition of specific failures in adaptation, to the unraveling of conflict situations and to helping the patient to understand the meaning of his symptoms, and to tolerate and control his emotional problems. Meanwhile some of the older still usable techniques have fallen by the wayside.

Briefly a few of the principal motivations which drive all of us forward are (1) an effort to attain mastery over ourselves, (2) to attain social approval, (3) to possess security, and (4) to acquire a satisfying love and all that that implies.

Actually full normalcy means a complete acceptance of all dynamic drives, the possession of adequacy to withstand stress in all spheres, and the ability to function as an asset to one's group.

A failure in any direction means frustration, which, if well controlled, indicates satisfactory adjustment; though if uncontrolled, means maladjustment. To use simple terms, then, maladjustment means unsatisfactorily controlled frustration. Thus we are presented immediately with a point of attack for treatment, even though we may not have an opportunity to go further in our investigation to determine the origin of the frustration and the reasons they are uncontrolled.

Treatment would imply then, adequate training in the control of responses to a frustration which cannot be altered.

Where it is possible we attempt to go behind the curtain of inhibition and defense in an effort to determine the nature of the frustration, and further to define and clarify the conflict situation behind that, and to understand the dynamic forces at play with their specific emotional distortions. Through cautious interpretation of the meaning of symptoms and careful re-education, we may be able to relieve our patients of some of their emotional turmoil and frustration, and to render them more adequate to accept comfortably their own self control.

Our objective is correction of maladjustment and development of personality adequacy. Any outline of psychotherapy therefore involves teaching the patient to understand his situation within himself, the nature of his illness, and his weaknesses. He would have to learn his limitations and make adjustments to them. He would have to learn what dormant abilities he may have and to develop them for an aid in furthering self-confidence. The patient may be taugh to develop control of himself. He may be taught to dominate his emotional crises and to react with intelligence, and eventually to develop sagacity in the handling of his personal problems.

Before outlining techniques for treatment, let us recall that neuroses are functional nervous disorders, manifested by mental symptoms indicating psychological avoidance reaction; and accompanied by vague physiological disorders especially of the sympathetic nervous system, with possible conversion signs of more major significance.

We must recognize in many patients with neuroses an etiological predisposition of lower resistence, and a hypersensitiveness to stress in a person who easily develops self-protective avoidance reactions. The maladaptations then are the result of faulty habit reactions and a failure to accept control as a normal experience in handling within oneself sex urges, separations from parents, the hazards of adolescence and responsibility and obligation of adult life; all of which means normal discipline. Patients therefore who are unable to face undue stress are unconsciously seeking escape by some substitute or compromise reaction which we call a psychoneurosis. Such patients are filled with anxiety and are in a state of fear toward their symptoms, their environment and their future, and, by reason of many failures to obtain relief, are apprehensive and doubtful that any help may be given to them.

The technique of treatment of a psychoneurotic person requires careful, detailed study of the individual case, and must be undertaken with the spirit of warm, friendly interest and the establishing of the confidence of the patient in the physician. It is well to allow the patient to "talk himself out," to tell his story in his own words, and later to elicit from him a detailed history as to his heredity, his illnesses, his education, career, family life, financial stability, and so forth. Having these facts arranged in chronological order, not only helps the physician in his estimate of the patient, but establishes further a certainty in the mind of the patient that the physician understands all of his problems and all of the factors in his background. Next a detailed history of the neurosis itself is obtained, in which

all of the present symptoms are noted, and an attempt should be made to determine the time of onset of these symptoms as nearly as the patient can trace it. Also there must be obtained an account of the circumstances and the causes of the illness as the patient believes them to exist.

A complete physical and neurological examination with the necessary studies of the urine, blood, and other indicated laboratory procedures is most essential, not only to uncover somatic disability and dysfunction, but in furthering the complete perspective of the patient in the mind of the physician, and also in building further confidence in the mind of the patient in his physician. All physical disabilities uncovered must be expertly treated and controlled to give the patient the best possible opportunity to get well.

During the taking of the history and the making of these examinations the physician has been reaching a careful psychiatric evaluation of the patient.

Immediately after the first complete survey of the patient has been made, the physician should have a frank talk with him, explaining directly and in simple terms the significance of all the findings in the case, correlating the various factors, and terminating his discussion by outlining what is to be done in the way of constructive treatment.

It must be first decided whether the patient is to be treated in a hospital, in a sanatorium or at home, and in reaching this conclusion, the physical findings, the nervous symptoms, the situational problems and the environmental factors must all be taken into consideration, as well as the probable duration of the illness and the further probability of success of the treatment.

In the busy doctor's office a thorough investigation on the first visit certainly is not usually convenient or practical, and it is often necessary to plan specific appointments to complete these examinations before formulating a fixed plan. Where possible such appointments should be carried out within the next two or three days, and brought to a prompt conclusion, for delays are frustrating and destroy confidence.

The doctor's talk to the patient must be positive as well as frank, and his advice and decisions must be on a personal, practical and sensible basis. Obviously such talks must be phrased in the manner suitable to the ability of the patient to understand and accept them. It is always well to emphasize to the patient the doctor's understanding of the genuineness of his complaint and an appreciation of the fact that he is really suffering; always being careful not in any way to belittle him, or make him fell inferior, but to protect his pride so that he will sense as the result of the discussion that something has been added to his personal dignity.

In order to devote the required amount of time to such a patient many general practitioners have found it expedient to assign certain hours each week by appointment for these patients, and to charge them additionally for the time consumed. The members of some county medical societies have drawn up agreements among themselves for the establishment of some uniformity for such a custom.

Since time is always a factor in the handling of a neurosis, it is frequently quite practical to allow patients to do a certain amount of home work, to help them to uncover some of the outstanding factors in their history.

Most patients rather readily accept the suggestion of writing out an autobiographical sketch, particularly if it is made simple and in outline form, and if it follows planned assignments to be discussed by appointment. It seems easiest for most people to recall their histories in chapters based on pre-school, primary and grammar grades, high school, college, career and so forth. It is sometimes surprising to discover the amount of material some patients can recall and bring forward about significant experiences which they had long ago forgotten.

To prevent a long bulky essay it may be well to suggest that they just make headline entries of good and bad experiences. For example, under the heading, "adolescence" there might appear under the "good" column—"fell in love with Suzy," and later under the "bad" column, we might find "jilted by Suzy."

The accomplishment of an autobiographical sketch in regular sequence can be considered part of his treatment program and becomes important to the patient. He is told specifically to assign himself to a half hour a day for this task, such as a half hour immediately after dinner or a half hour before retiring, when he is to sit quietly alone and let ideas slide through his mind and then jot them down.

Such an outline furnishes a guide for full discussions which may bring forward much material significant to the physician in his effort to help the patient understand himself. Caution should be exercised not to interpret the material too quickly, but to keep a record of certain items for consideration in the all over evaluation of the problem, and perhaps later use some of this information in an effort to help the patient develop an insight into the beginnings of his neurosis. Gradually, as his confidence increases, he will learn to make many

of his own evaluations, and with the guidance of his understanding physician, will come to understand why it was necessary for him to have neurotic symptoms, what they meant, and to discover that he no longer needs them.

Later when the autobiographical sketch is fairly complete it may be possible to turn the patient's interest back into determining, through the various phases of his life, those things about which he developed hatreds. It may be possible to get him to discuss many of his accumulated hatreds and loves in the past years without becoming too involved.

It is quite important to recognize in certain disclosures made by the patient some deep-seated emotional conflict situations, which the physician himself may not be able to interpret, but which he can note and lay aside as one of the factors to be discussed later with the psychiatrist who is collaborating with him in the handling of the patient.

While an effort is continually being made for the patient to understand his problems and to learn new ways of handling himself, the doctor must be cautious not to cause confusion by moving forward too rapidly in any re-educational program. All patients will require repeated re-assurance, encouragement and an opportunity to express themselves freely as to their emotions, their doubts, their fears without risk of censorship, so that they may gradually discuss matters of serious moment with less and less sense of guilt, anxiety and emotional turmoil.

Frequently it will be noticed by the attending physician that his patient will approach a subject for discussion only to veer cautiously away from it, because the discussion of that particular subject may be too distressing to him emotionally. It may be well to quietly make note of such matters so that at future interviews they may be cautiously presented for further discussion.

These subjects about which the patient has such great defense are usually of decided significance. Garrett has listed some clues which might be distinctly helpful in discovering hidden but important material.

1. Association of ideas, such as a statement of the patient's inability to get along with his boss in the same paragraph that he discusses his feelings toward his father.

2. Shifts in the conversation. This suggests either that the material being discussed was too painful for the patient or else that the material and the topic shifted to have a relationship to the patient.

3. Recurrent explanations or references. These "theme songs" often represent an expression of unconscious conflict.

4. Inconsistencies and gaps. These frequently indicate feelings of guilt, confusion, ambivalence, hostility, et cetera.

5. Defense mechanisms. This includes the use of digressions, symbols, stubbornness, projections, et cetera.

It has been repeatedly pointed out that if the patient can bring out his hostilities, his anxieties, concerns, ambivalences, and his feelings of guilt and have them accepted without criticism by the doctor, then he acquires an opportunity to understand himself as he is.

The doctor must understand that there are times when the patient will develop emotional feelings toward his doctor, sometimes for and sometimes against him as an inevitable part of any self-exploration. Under such circumstances the doctor must be objective and direct the patient into an understanding of the reason for these feelings. Many patients will gain security by developing some dependency upon the physician for a time which will be necessary to them. As the opportunity arises it will gradually be possible to develop in the patient enough self-assurance that this dependency upon the doctor or anyone else becomes less and less a necessity.

In the handling of a neurosis it is necessary to keep in mind the strengthening of the ego, that is to say, the strengthening of the directing or controlling portion of the personality of the patient, for it is the failure in his ability to be able to direct himself in the presence of conflict situations that permits him to have a neurosis.

The doctor's effort therefore, is not only to understand the patient and to have him understand himself, but to teach him new habits of adjustment which would in turn develop this personality strength. Management of the patient through this training program must be thoroughly realistic. He has to learn to develop a tolerance to fatigue, to stress, to adversity, to depression, to anxiety. Through the doctor's re-assurance and his own re-education he gradually learns to accept many of these manifestations of his illness which will fade away gradually as he gains inner strength. New qualities, new aptitudes must be found to capitalize upon with which to develop greater confidence in himself. He can learn to dominate his emotions rather than allowing them to dominate him. He can learn to be intelligent rather than emotional in his decisions and to devise new ways of meeting problems. In other words, any treatment program would involve the unlearning of bad habits of meeting problems and the learning of good habits of meeting those same problems.

In the treatment of any neurosis the members of the immediate family of the patient must come into consideration and not infrequently will require some education in the direction of tolerance of the patient and his symptoms and in an understanding of what the patient and the doctor are trying to accomplish so that full cooperation and understanding may be attained.

Throughout a therapeutic program a definite sequence must be adhered to and followed persistently, though with reasonable elasticity. If the doctor does not keep notes, does not follow a sequence for orientation from interview to interview, the patient soon will feel confused and disorganized. A therapeutic program is a teaching schedule and should be arranged to proceed steadily ahead from visit to visit so that the patient, but particularly the doctor, has a plan to guide him throughout treatment.

Most patients should be treated on a work basis, that is to say, at home and on the job, rather than in a sanatorium. The usual patient suffering from a severe neurosis may require a few days in the hospital for a complete study. Those with profound exhaustion and other serious somatic manifestations may require the isolation, rest and security of sanatorium care. Patients who are sufficiently ill to require sanatorium care are so usually because the stress at home and in the office is too great, so that little good will accrue from sanatorium treatment unless complete isolation is insisted upon. To obtain isolation and rest the elimination of visitors and the telephones are essential.

*Occasionally a few days under modified narcosis is very comfortable to an anxious, tense, nervous person, and allows them to get off to a good relaxing start. Under a routine regime of rest, most patients will readily gain weight. Those who do not and in whom this seems particularly indicated, may be helped considerably by the use of small doses of insulin, 15 or 20 units injected intramuscularly, a half hour before each meal. Mild signs of hyperinsulinism may occur, but are usually not very disturbing and are readily alleviated by the use of a lump of sugar or fruit juice. The patient should be supplied with orange or grape juice as a convenient and freely used beverage, off and on all day, and told to carry a few lumps of sugar. Also 12 ounces milk, one ounce cream, two eggs with a half teaspoonful of sugar (an eggnog) as a regularly timed diet between meals is very helpful. A direct effort must be made to build up good muscle tone, at first by means of massage and then gradually increasing exercises. Rest periods after massage, after exercise and after lunch should be insisted upon, preferably in the open air. Insomnia may be controlled by the use of nembutal 1½ gr., seconal 1½ gr., or carbrital gr. 6, may be used, but tend to be depressing if long continued. It is well to determine the amount of sedative needed and to give it in divided doses such as half of the dose at 8 p.m. and the other half at 10 p.m. The dosage should be enough to insure a full night's rest and thus avoid the need for medication during waking hours in the early morning period since patients readily develop the habit of waking for medication at that time and can as easily acquire the habit of sleeping through the night. Occupational therapeutic measures which are suitable to the specific patient are extremely helpful in re-establishing the ability for concentration and interest, and in resting highly tense nervous patients through the use of their hands, while aiding to mix with a group on a common level of activity. All decisions as to rate of progress, amount of work, type and degree of exercise and all other activities are the responsibility of the physician who must have complete disciplinary control at all times. It is extremely important that nurses in charge of such cases understand distinctly the relationship of the authority of the physician to the patient, and also that the nurse be capable of maintaining a friendly control of the situation surrounding the patient.

The gradual development of tolerance to fatigue requires accuracy and caution, so that the advances made are regular and not dependent upon the desire of the patient, and the confidence of the patient in his progress must not be upset by too much enthusiasm in forcing him beyond his actual ability to withstand fatigue.

Medication in the handling of neuroses is largely symptomatic, although it is popular to give vitamins in massive mixture; particularly vitamin B_1; and tonic prescriptions of various kinds are sometimes helpful, such as nux vomica in exhaustive cases. For those who are particularly anxious and tense, and show many vasomotor signs, a prescription containing gynergen, belladonna and phenobarbital has proved very comforting.

When simple depression is a prominent symptom in the course of a neurosis, it will often be found quite helpful to administer dextro-amphetamine sulphate. The dosage may have to be reduced or increased according to the reaction upon the patient. This therapeutic adjuvant has the ability to lessen the depth of a depression and in overdoses may even produce a mild euphoria and pronounced insomnia. Therefore dexedrine should always be administered during the hours before noon and frequently neces-

*In every case a gradual effort must be made to re-establish the patient in some activity and useful work to maintain specific contact with reality and to aid him to again fit into a social group.

sitates the use of a bedtime sedative such as nembutal 1½ gr. In tense, anxious states dexedrine not infrequently adds to the discomfort of the patient causing restlessness and agitation instead of elation and must therefore be used with judgment.

Electro-shock therapy may be indicated in the occasional serious neurosis with deep and prolonged depression sufficient to interfere with other forms of treatment. Now and then an intractable obsessive compulsive type of neurosis may be helped by the use of electro-shock therapy.

The danger of dependency upon medication of any form is always present in the apprehensive neurotic patient who is looking for supports to lean upon, so that frequent changes in prescriptions would seem advisable. Many patients who have long suffered from neuroses have been taking one or another forms of bromide barbiturates and too frequently the unfortunate patient is found to be suffering from a low grade chronic bromide or barbiturate poisoning.

For the treatment of the psychoneuroses there have been elaborated many psychotherapeutic procedures some of which tend to deviate at tangents involving complicated psychological concepts and overlooking the patient as a whole. It is well to keep in mind that every part of the program planned for the treatment of the patient has some specific psychotherapeutic value as it contributes to the confidence, the understanding and the recoverability of that patient. Every contact with the physician, every change in routine, every alteration in medication may be considered also as having a psychological value and therefore has psychotherapeutic significance.

Whatever form of psychotherapy is attempted will be definitely colored by the personality of the physician, his understanding of the patient, and his ability to develop complete confidence of the patient in him as a physician, and to counsel with and to direct the recovery of this particular patient. The personality and training of the physician frequently determines the method in which he is most successful. One physician will be dominating and aggressive, while another will be re-assuring and persuasive, but in any case positiveness is most essential that he may direct the patient's tendencies, and teach him to recognize the struggle he is making between his desires and his wish to attain an average existence in a cultured environment, until he gradually begins to recognize in himself an individual personality in which he can develop pride, and so reach toward a better level of adequacy.

The principles involved in the psychotherapeutic procedure may be summarized therefore as follows: first, the development of complete confidence and respect by the patient in his physician; second, an opportunity to talk out his problems in detail; third, the patient must learn to face his avoidance reactions by careful explanation of them and the assimilation of advice and suggestions of the physician; fourth, gradually develop insight into his difficulties; he must learn to understand the meaning of his symptoms; fifth, he must develop new mental habits for meeting his problems which will involve adjustment to his social environment, a recognition of all of his good qualities, a recognition and ability to utilize those qualities which he possesses which will give him power over himself and his situation, and a learning to accept again responsibilities on an active level.

In any discussion of treatment of a neurosis, the question of prevention must be considered and here the importance of the methods of mental hygiene must be emphasized, particularly as applied to early childhood and adolescence. The interest in this subject in parent-teacher groups and in various organizations throughout the country is most encouraging and it is definitely helping to prevent psychoneuroses in adults. A formal psychoanalysis should never be attempted except by an expert in this field, and then only on a very limited group of specially selected patients. A careful follow-up program for every patient with a psychoneurosis is necessary for at least a year or two, for he will be facing problems, both old and new, which he seems almost able to combat, but cannot quite do so. He needs the additional assistance of his physician to carry him along until his tendency to avoid problems is completely overcome and he is again meeting and handling all of his difficulties adequately, with complete self-assurance and mastery over his situation.

The management of neuroses therefore becomes the duty of every physician, particularly of the physician in general practice who has the greatest opportunity to help the patient in the incipiency of his neurosis.

It may be well to keep in mind that any ill patient from whatever cause, is facing the result of fear of his illness, whether conscious or not, as well as the necessity for adjustment to a new and strange situation, with the threat of not only physical and mental but also economic insecurity. Any physician, wherever he may be practicing, is definitely more helpful to his patient when he demonstrates some understanding of the psychological factors involved during a physical illness.

Every thoughtful physician can readily acquire the art of seeing through the eyes of his patient the specter of disability, even if temporary, and the

emotional consequences reacting through the patient and members of his family. Some of these, often barely noticed factors, may influence the nature and duration of the illness very materially and can be tremendously relieved by a physician who takes time to understand.

BIBLIOGRAPHY

1. WEISS, E.; Modern Attitudes in Psychiatry, Columbia University Press, 1946.
2. LEWIS, N.; The American Journal of Psychiatry, January, 1948.
3. HAMILTON, D. M.; Quarterly Review of Psychiatry and Neurology, January, 1948.
4. EBAUGH, F. G.; Evaluation of Interviewing Technics and Principles of Psychotherapy for the General Practitioner, Journal of the Omaha Mid-West Society, January, 1948.
5. GARRETT, A.; Interviewing; Its Principles and Methods, Family Welfare Association of America, New York, 1942.
6. KEYES, B. L.; Treatment in General Medicine (Reimann), F. A. Davis & Co., 1939.

FRACTURES ABOUT THE ANKLE*

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A discussion of fractures of the ankle reopens a very old chapter in the history of surgery. Since the mechanism of injury was described in the 18th century by Potts and Dupuytren our understanding of the subject has undergone very little change. Successful management of these fractures is still dependent upon clear recognition of the deformity and manual restoration of the ankle mortise. Reduction by mechanical or open methods has a relatively small place in treatment of fractures in this region.

TYPES OF FRACTURE

The four kinds of violence which commonly produce ankle fractures are external rotation, abduction, adduction and compression. Occasionally two of these forces may be combined.

The external rotation type of fracture is the most common, comprising about two-thirds of the cases. There is first a torsional fracture of the fibula, and then a tearing off of the medial malleolus if the astragalus is forced further lateralward.

Abduction fracture is the next most common, comprising about one-fifth of the cases. The medial malleolus is avulsed, and the fibula is fractured more or less transversely. In addition, the tibio-fibular ligament may rupture, and lateral dislocation may be present.

Next most common is adduction fracture, comprising about one-seventh of these injuries. Here the medial displacement of the astragalus produces a fracture of the medial malleolus, then a bending and fracture of the fibula. Medial displacement of the astragalus is common.

Compression type fractures are incurred in a fall from a height. This produces a comminution of the joint surface of the tibia with either forward or backward displacement of the astragalus. Fractures of the astragalus and sometimes of the os calcis are often present.

These are the primary forces. Another type of fracture which represents a combination of two forces occurs when the foot is plantar flexed and everted with great force. There is lateral displacement of the astragalus, fractures of one or both malleoli and shearing off of the posterior tibial margin, sometimes with a fragment which comprises a third or more of the joint surface, in which case the astragalus dislocates backward and upward. This type of injury is called the "trimalleolar fracture."

EXAMINATION IN ANKLE INJURIES

Clinical examination: In obtaining the history from the patient some idea of the type of injury sustained may be learned from his account of the accident. On examination we usually find the foot held in plantar flexion and as a rule we find swelling already present. There may be evidence of medial, lateral, or posterior displacement of the foot on inspection. Palpation may reveal a sulcus at the normal position of the medial malleolus, or a change in the normal contour of the lateral mal-

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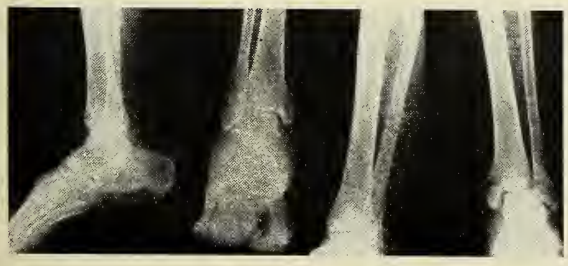


Figure 1

Figure 2

Figure 1 External rotation fracture of the lateral malleolus.
Figure 2 Abduction fracture of medial and lateral malleoli, showing lateral displacement of the astragalus.



Figure 3

Figure 4

Figure 3 Adduction fracture of both malleoli showing tilting but no displacement of the astragalus.
Figure 4 Compression-type comminuted fracture of the lower tibia and fibula, with posterior displacement of the foot.

leolus, and point tenderness over these landmarks. Pressure on the fibula well above the ankle may elicit pain at a more distal point. Manipulation may show crepitus, or increased antero-posterior mobility of the foot.

X-ray examination: The x-ray examination of the injured ankle is very important because it is upon these initial films that treatment is based. It is frequently wise to suggest that the AP view of the ankle be made with the patella uppermost, regardless of the direction in which the toes may point, so that a true AP view is obtained. Similarly the lateral view should be made at 90° from the first, with the lateral side of the foot against the cassette. In both instances, we must center the tube over the ankle joint in order to see this clearly. The film should include the os calcis and show the leg bones well above the ankle.

Such care in making the films decreases the possibility of obtaining oblique views which are difficult to interpret.

If the clinical history has indicated a violent injury and our initial AP and lateral views have not shown a fracture, there are three conditions which we must keep in mind. When there has been an abducting or everting force we may have tibiofibular separation, actual or latent. This condition can be ruled out by taking an AP view of the ankle with the foot held in eversion, using procaine if necessary. These should show the fibula remaining in the fibular notch of the tibia. In adduction injuries there may be lateral ligament damage; in this case an AP view with the foot held in inversion may show the astragalus dropping away from the lateral tibial joint surface. In compression injuries we must always look for a fracture of the os calcis, which is indicated by loss of the salient angle in the lateral view of the ankle.

Before discussing treatment of these fractures in detail we might mention a few of the points deserving emphasis.

GENERAL POINTS IN TREATMENT

The clinical examination should evaluate the general condition of our patient as well as the status of his injured ankle. It must include an appraisal of circulation and sensation in the foot, it must prove or exclude injuries elsewhere in the body, and guide us in the choice of anesthesia.



Figure 5A Figure 5B

Figure 5a Adduction-type bimalleolar fracture with severe displacement.

Figure 5b Improved position following manual traction and inversion of the foot at the subastragalar joint.

The x-ray examination must furnish a clear picture of the deformity to be corrected. It should tell us whether os calcis and astragalus fractures, or torsional fracture of the fibula above the ankle, are present.

Anesthesia, whether regional or general, must provide good relaxation. When our patient is under anesthesia, we should palpate the fracture landmarks so that we will recognize correction of displacement by palpation. Our reduction must eliminate all clinical evidence of displacement or the x-ray check is certain to show an unsatisfactory reduction; only when we can no longer palpate any displacement is it time for an x-ray check. If our reduction is unstable, it may be wise to apply a plaster slab before taking films.

In applying the cast we should think of plaster not as a bulky, rigid dressing but as a flexible medium which can be applied so that it conforms accurately to the extremity.

When the cast is complete it must be split and the foot elevated. Circulation is carefully watched, and the cast spread if necessary. When tissue reaction has subsided another x-ray check is indicated; our cast may then no longer fit and need replacement, particularly if the fracture permits weight bearing in the plaster. It will also need to be changed in three weeks if reduction has necessitated strong inversion or eversion of the foot.

Healing is judged by subsequent x-rays taken through the cast. After its removal we must assist circulation by a compression bandage and provide an inlay in the shoe to correct any foot imbalance. These measures, and local heat, greatly add to the comfort of the patient.

TREATMENT OF SPECIFIC ANKLE INJURIES

Films negative for fracture: First of all, let us suppose that the x-ray appears negative. We should look very closely at the lateral view in this case, to be sure that there is not a diagonal fracture of the fibula.

If we can see none, and the injury was produced by eversion, we may then want to give local anesthesia to permit eversion of the foot. This will demonstrate abnormal lateral mobility of the fibula and astragalus. If it does so, we must apply a cast from the toes to the knee with maximum inversion of the foot at the sub-astragalar joint, with the foot in moderate equinus. After three weeks the foot can be brought back to the neutral position and another cast applied, carefully molded so that it

does not permit the malleoli to spread, but we do not permit the patient to bear weight in the cast. At the end of ten weeks the cast is removed and x-ray check repeated. If there is no lateral displacement of the fibula, walking is permitted.

If x-rays are negative and the injury has been one of inversion of the foot, the AP view of the foot in inversion may show the talus dropping away from the lateral joint surface of the tibia. In this case a cast should be applied with eversion at the sub-astragalar joint. In this case also the foot should be brought to the neutral position after three weeks and the follow-up care is similar.

Fracture of a single malleolus: If the clinical examination indicates a unilateral injury and the x-ray shows a spiral fracture of the lower fibula, or an undisplaced fracture of the medial malleolus, treatment is quite simple. General or regional anesthesia is given, as much swelling massaged away as is possible, and a short leg cast applied from toes to the knee, holding the foot in neutral position, and at a right angle with the leg. It is then split, the foot elevated a few days, and the patient may begin to walk as soon as tissue reaction has subsided. Felt on the sole prevents damage to the cast. It may be necessary to bind the cast snugly with bandage at several points. To keep the walking cast clean the patient should wear a sock over the toes and apply a large, cut-out shoe to the foot so that he will not soil the sheets when he gets into bed. The cast is removed after six weeks.

Undisplaced bimalleolar fracture: If the x-ray shows an undisplaced bimalleolar fracture, or if there is clinical evidence of ligament injury on the opposite side of the ankle from fracture of one malleolus, general anesthesia is given and a short cast applied, holding the foot in neutral position or in moderate inversion, and extending from the web of the toes to the tibial tubercle. Tissue reaction in this case will be more severe, with a greater period of elevation necessary to reduce swelling. The cast may need to be spread. Generally in one week the reaction has subsided, and the patient may be permitted to walk after the third week with the addition of felt padding over the heel, held on with plaster, the sock over the toes, and shoe. Our cast should then remain on a total of eight weeks, during the last three or four of which the patient has borne weight.

Displaced bimalleolar fracture—abduction type: Now let us suppose our x-ray films show a fracture of both malleoli with lateral displacement of the astragalus, and therefore widening of the ankle mortise, the result of an abduction or an external rotating fracturing force. Early reduction with general anesthesia is indicated. Here we must palpate the fracture landmarks and check these with the x-ray appearance so that we will be able to recognize clinically an improvement in position. While an assistant makes counter-traction on the flexed thigh, traction is made on the foot followed by medial pressure on the foot so as to invert the foot at the sub-astragalar joint. As we hold the foot inverted, digital pressure is made on the medial malleolus until it moves about freely and can be pressed firmly into place, obliterating the sulcus previously felt. The foot is held inverted while the other hand makes firm pressure on the lateral malleolus to mold this firmly inward. If displacement recurs readily this is overcome by the use of a thin posterior slab of plaster. A pad of felt is placed over the popliteal space so as to cover the space and the peroneal nerve where it crosses the fibula. The posterior slab is then applied to the sole, making a gusset at the bend of the heel, and extending the slab over the felt to the upper thigh. This is smoothed free of wrinkles and rubbed until it conforms closely to the entire extremity. As this sets, the knee is kept moderately flexed and the foot held in inverted position. When it hardens the position is easily maintained, and the x-ray may be taken with less likelihood of displacement. Assuming that the reduction is satisfactory, a rubber tube greased with vaseline is placed on the front of the leg, and any vesicles or abrasions covered with vaseline gauze. The leg is then covered from the toes to the upper thigh with sheet wadding and circular plaster follows, beginning at the toes and with only moderate overlap, carried up to the knee level. The first bandage should be allowed to harden, and rubbed as it sets so it conforms accurately. When this has set the cast can then be completed with several more bandages. The cast need not be more than one-eighth inch thick. When the completed cast is set, the rubber tube is withdrawn and the cast cutters follow up the track it occupied so that the entire cast is split down the front. Gaping is prevented by a few turns of bandage placed at intervals along the cast.



Figure 6 Figure 7

Figure 6 This fracture is unsuitable for early weight bearing in the cast because inspection of the lateral view reveals a large undisplaced posterior marginal fracture of the weight bearing surface of the tibia.

Figure 7 Forward dislocation of the astragalus following application of the cast.

Displaced bimalleolar fracture—Adduction type: If our fracture is a bimalleolar fracture with medial displacement the treatment is the same except that in reduction we evert the foot after applying traction.

The malleoli are molded in the same way and a long cast is usually necessary.

In both cases the foot is elevated until the reaction subsides; the patient may then get about on crutches. After three weeks a short leg cast is substituted, but walking is usually not advisable until six weeks after injury. Plaster immobilization is continued for eight to ten weeks. After removal the patient should be given an arch support which holds the heel slightly inverted and maintains the longitudinal arch of the foot. To prevent excessive swelling, an ace bandage should be applied by the patient as he arises in the morning and may be removed at night. Physiotherapy in the form of radiant heat is very helpful. The total expected disability is between 12 and 16 weeks in these fractures.

Trimalleolar fracture: If our x-ray reveals a fracture of both malleoli and the posterior margin of the tibia, the important factors are the size of the posterior tibial fragment and its degree of displacement. If these are such that there is considerable disruption at the tibial joint surface we know that the reduction will require some pains on our part, and the aftercare will be long and difficult.

In reducing this fracture we must have good relaxation. First the posterior and upward displacement of the foot is corrected by downward and forward traction and counterpressure on the front of the leg, keeping the knee well flexed. We must be careful not to pull the foot too far forward as it may dislocate this way as readily as backward. If the foot is drawn forward the correct amount, inversion at the subastragalar joint will reduce the lateral dislocation and tend to bring the malleoli into place. The assistant must then make pressure towards the foot on the flexed knee while the operator pushes the foot into dorsiflexion to lever the posterior tibial fragment downward. Here the intact anterior tibial joint surface serves as a fulcrum, and the foot as the lever, while the posterior capsule of the ankle draws the tibial fragment downward. The posterior slab will be necessary to maintain the position, and it is advisable to complete the cast to the tibial tubercle with one roll of plaster bandage before taking x-ray films. If the reduction is good, the cast is then completed with the knee well flexed, splitting is carried out and the foot elevated and left undisturbed. Another x-ray check should be made in three or four days, as slipping is very likely. If at this time the distal joint surface of the tibia is not smooth, open reduction will be necessary to obtain a good result. If we have been fortunate enough to maintain a good reduction of the tibial fragment, and the AP view shows a snug ankle mortise, the after care is carried out the same as in the displaced bimalleolar fractures except that weight-bearing should not begin until by x-ray healing is shown to be well advanced.

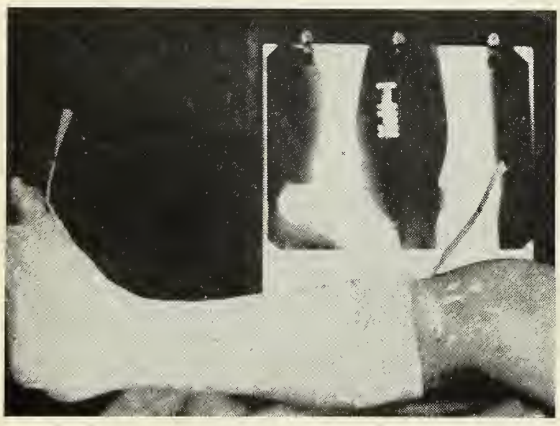


Figure 8

Figure 8 Short-leg walking plaster with felt applied to the sole to protect the sole of the cast in walking. A paper-covered tin strip is in place to permit splitting, after which the strip is withdrawn from either end.

Compression fracture of the tibia: When our initial films show a comminuted fracture of the lower tibia, and the fragments are large, open reduction is probably the best treatment. If there is much comminution, skeletal traction is necessary. A Steinman pin or a Kirschner wire is put straight through the os calcis one finger breadth diagonally below and behind the lateral malleolus, and firm traction made with the knee flexed. Molding is done by manual pressure. Every effort is made to obtain a smooth tibial joint surface. Sometimes reduction is more readily obtained with plantar flexion of the foot, in which case backward and downward traction may be made on the pin. A cast is then applied to the tibial tubercle, and when this hardens, may continue to the upper thigh. Whether the cast is short or long, continuous traction is necessary. The Steinman pin or Kirschner wire must be removed after three weeks. To leave this longer is to invite infection. A new long leg cast may be applied later but weight-bearing is deferred until x-ray evidence of healing is well advanced. After removal of the cast, some of these cases continue to have pain on weight-bearing. If this becomes gradually worse, arthrodesis of the ankle may be necessary.

SUMMARY

Early and complete correction of the displacement is required in these injuries. It behooves the surgeon to be critical of his reduction and to be dissatisfied with an imperfect restoration of the ankle mortise. The aftercare required is greatly

simplified, and much time is saved for the surgeon and patient, if accurate reduction can be accomplished at the outset. Weight-bearing in the cast is helpful when judiciously used, but should not begin until it is compatible with maintenance of reduction.

REFERENCES

1. Dickson, F. D. J.A.M.A. 91:845-850. Sept. 22, 1928.
2. Watson-Jones, Reginald. Fractures and Joint Injuries. Third Edition, 1946. The Williams and Wilkins Company, Baltimore, Vol. II, pp. 765-797.
3. Bohler, Lorenz. The Treatment of Fractures. Fourth Edition, 1936. William Wood and Co., Baltimore, pp. 429-447.
4. Hermann, Otto J. in Bancroft-Murray. Surgical Treatment of the Motor Skeletal System. J. B. Lippincott Co., Philadelphia, 1st Edition 1945, Vol. 2, pp. 1094-1113.

ONYCHOLYSIS DUE TO PLASTIC ADHESIVE FOR NAIL LACQUER

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Onycholysis peculiarly affecting all or most of the fingernails and not affecting the toenails constitutes a syndrome of which we have seen several cases in a recent, short period of time. The patients were women, whose nail complaint was of a few months' duration and who were otherwise in unexceptionable health. When disease of the nails affects ten fingers and no toes, the cause must be local rather than systemic in origin[1]. So it was apparent, after brief study, that this type of onycholysis was caused by the newly introduced cosmetic preparations of plastic adhesive intended to keep colorful nail lacquer pleasingly in place. Within a few months of their commencing the use of such substances, our patients, who told us they applied, respectively, "Perma-Nail," "Nail-On," and "Ever-On," noted thickening of the distal nail beds under the free margins of the nails and progressive, proximad separation of the nails accompanied by longitudinally streaked, brownish discoloration. There was no complaint other than the unattractive appearance of the nails. The fingertips were not tender or inflamed.

Dermatitis did not appear elsewhere. The digital skin was not inflamed macroscopically, and itchy lesions of the eyelids, face, conchae or neck, such as nail lacquer has frequently provoked[2], were not present in these patients. The action of the adhesive was local, and not eczematous.

The composition of the substances was not divulged to us upon request of the manufacturers for such information. However, through the research department of the Toilet Goods Association, Inc., New York City, we learned that the ingredients usually present in these special base coats are solutions of synthetic rubber of the Buna N type such as Perbunan 35N560 modified by a phenol-formaldehyde type of resin such as Durez 11078 or Bakelite BR 17620, and dissolved in methyl ethyl ketone. Since the onychial damage done by various brands was clinically identical, we assume the chemical is similar in each.

When the adhesive was left off, regrowth of the nails did take place with restitutis ad integrum.

We have no way of knowing what proportion of the population is susceptible to derangement so provoked, but we believe the reaction to be of the sort induced by a primarily injurious solvent substance rather than an allergen. This implies that the disorder may be expected to occur with high frequency until the cosmetic trade corrects its error. Certainly the collection of four examples of a "new disease" in a few weeks of a dermatologic practice suggests that many cases are occurring.

Onycholysis of all fingernails is sometimes caused by immersion of the hands in strong cleansers in hot water[3]. Such onycholysis is manifested by simple distal separation of the nail, which is not discolored, from its bed, which is not hyperkeratotic as in the cases of onycholysis due to lacquer adhesive.



Fig. 1. Onycholysis due to plastic adhesive for nail lacquer, Case 1.

*Associate Professor Dermatology and Syphilology, University of Kansas School of Medicine.

Case 1: E. M., white female, 54 years old, first seen March 8, 1948, noted brown discoloration of the distal portion of all fingernails with heaping up of horny tissue of the nail bed of eight weeks duration. Perma-Nail* had been used prior to the application of nail lacquer for three months. Toenails were normal in appearance. Culture of fingernail scrapings yielded no growth. Healing is taking place following discontinuance of the plastic adhesive, without the use of medication, but is not as yet complete (May 18, 1948).

Case 2: J. B., white female, 46 years old, first seen April 2, 1948, noted brown discoloration of the

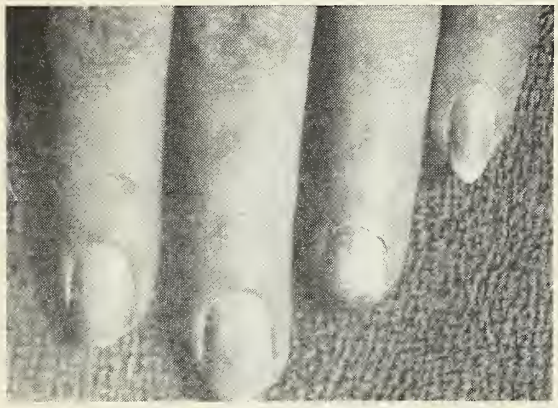


Fig. 2. Onycholysis due to plastic adhesive for nail lacquer, Case 2.

distal portion of all fingernails with separation of the nail and slight heaping up of the nail bed of three months duration. Nail-On** had been used for seven months. Toenails were free of disease. Healing is occurring without the use of medication following discontinuance of the plastic adhesive, but is not complete (May 18, 1948).

Case 3: A. G., white female, 44 years old, first seen April 28, 1948, noted brown discoloration of the distal portion of all fingernails with subungual hyperkeratosis of three weeks' duration. Perma-Nail* had been used for five weeks. Toenails were free of disease. Healing is taking place without the use of medication following discontinuance of the plastic adhesive, but is not as yet complete (May 18, 1948).

Case 4: M. F., white female, 45 years old, first seen March 15, 1948, noted brown discoloration of the distal portion of all fingernails with subungual hyperkeratosis of four weeks' duration. Ever-On*** had been used on the nails prior to the application of nail lacquer for six months. Toenails were nomal in appearance. Candida albicans was cultured from fingernail scrapings, but healing is taking place without the use of antiparasitic medication following discontinuance of the plastic adhesive.

SUMMARY

Onycholysis of the fingernails, accompanied by subungual hyperkeratosis and progressive brownish discoloration of the distal portions of the nails, is a new manifestation, among the many previously known manifestations, of the possible injurious effects of cosmetic substances. This variety of onycholysis is due to adhesive materials intended to cause nail lacquer to adhere smoothly.



Fig. 3. Onycholysis due to plastic adhesive for nail lacquer, Case 3.

*Perma-Nail Distributors.
**LaCrosse Company.
***Revlon Company.

REFERENCES

1. Sutton, R. L., and Sutton, R. L., Jr.: Diseases of the Skin, edit. 10, 1939, p. 1419, The C. V. Mosby Co., St. Louis, Mo.
2. Dobes, W. L., and Nippert, P. H.: Contact Eczema Due to Nail Polish, Arch. Dermat. & Syph. 49:183-187 (Mar.) 1944.
3. Loc. cit. 1, p. 1426.

Hospital Statistics for 1947

Almost 18 million Americans were admitted into the 6,173 hospitals of the United States in 1947, according to the 1948 American Hospital Directory compiled and published recently by the American Hospital Association. This represents an average of one of every eight Americans receiving hospital care.

Approximately 16 million patients, two million more than in 1946, were admitted to general hospitals during the year. In addition, 40 million hospital visits were made by outpatients, those needing special tests or treatments without bed care.

The average cost of caring for a patient for one day in a general hospital rose from $9.39 to $11.09 during the year, yet the average income from patients was $9.71, leaving a daily deficit of $1.38 per patient to be made up through voluntary contributions and gifts from the public.

Part of the $2,354,344,000 expended by hospitals in 1947 was for the salaries of the 79 full time employees serving every 100 patients in all types of hospitals, the directory states. General hospitals had approximately 151 employees for every 100 patients to maintain prevailing high standards of patient care. Hospitals spent about 400 million dollars more in 1947 than in 1946, because of higher wages, higher prices, and expanded services.

The average patient going to a general hospital in 1947 stayed for only eight days, as compared with 9.1 days in 1946, the figures show. This reflects the spreading practice of entering hospitals in earlier stages of illness, possible for increasing numbers of people through Blue Cross and other prepayment plans, as well as wider recognition of the value of hospitals, improved treatment methods, and early ambulation.

HYSTERECTOMY—A NEW METHOD OF SUSPENDING THE CERVICAL STUMP FOLLOWING ABDOMINAL HYSTERECTOMY

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The technique of abdominal hysterectomy has become rather stereotyped and the operation is today a commonplace procedure even in smaller hospitals. There have been no significant changes in the method as described by standard texts on operative gynecology in the last 20 years.

The following method of suspending the cervical stump seems to offer some definite advantages.

METHOD

The usual procedure for supravaginal abdominal hysterectomy is followed in the preliminary steps and does not need to be described here. The round ligaments are transfixed and securely tied, both ends of the suture left long and tagged with a clamp. If the adnexae are to be preserved, the tube and ligament proprium of the ovary are transfixed and ligated similarly. If the ovary is to be removed, the suspensory ligament of the ovary is transfixed and tied and both ends of the suture left long.

1. When the uterus is ready to be amputated, the cervix is not coned out, as is usually done, but resected in the shape of a wedge, leaving a distinct anterior and posterior lip. Two Allis forceps are applied to the margins in the midline. These will serve later on to hold up the cervix and to locate the center stitch.

After the uterine vessels are securely ligated there should be only slight oozing from the cervix. Otherwise hemostatis must be accomplished before going on with the next step.

2. The cut end of each round ligament is now pulled to the opposite side with moderate tension and temporarily clamped to the lateral portion of its mate with Allis forceps. This gives the operator the exact position of the stitch. A round needle is now threaded on one long end of the tie on the round ligament and passed from underneath to the surface of the opposite round ligament, and this is repeated with the other end of the tie. The two ends are then tied on top. Similarly the end of the other round ligament is sewn to its mate from underneath, thus producing a half twist of the doubled portion of the round ligaments and a strong suspension cable across the pelvis. This step may be done with ease even if the two round ligaments are of unequal length as one often finds when removing a large fibromatous and distorted uterus.

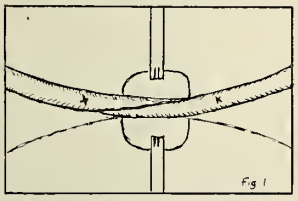


Fig. 1. The round ligaments have been united. Allis clamps applied to the midline of anterior and posterior lips hold up the cervix from below.

3. The center mattress suture is now passed beginning from the anterior lip of the cervix, where the Allis clamp is now removed, then through the round ligaments and through the posterior lip, and back from the posterior surface of the cervix, through or over the round ligaments to the anterior surface of the cervix. This is not tied, but left long. Until the other two cervical stitches have been tied it serves as a guide and handle.

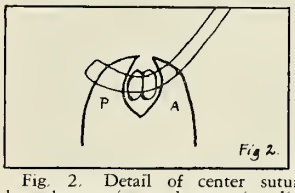


Fig. 2. Detail of center suture through anterior and posterior lips of cervix including the round ligaments.

Next the right and left lateral stitches are placed in the same manner. However, if the suspensory ligaments of the ovary are long enough, or if the ovary was not removed, one can utilize the ties of those structures which have purposely been left long. This further

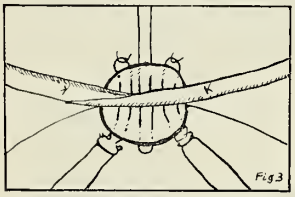
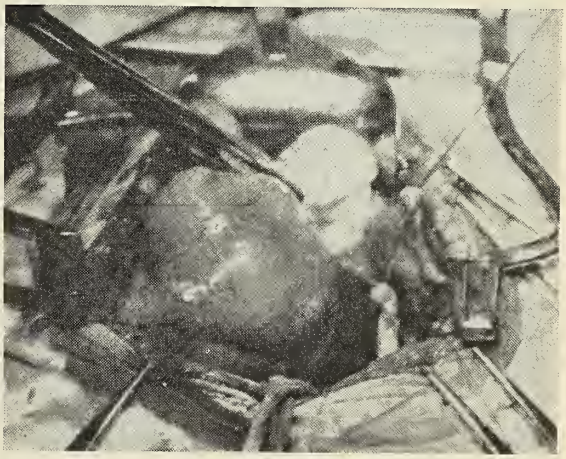


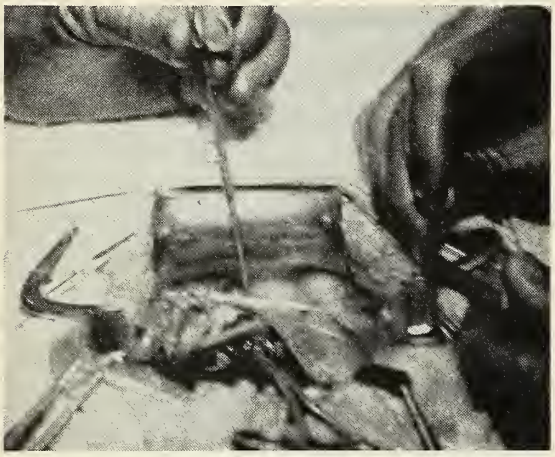
Fig. 3. Method of attaching suspensory ligaments of ovary to cervix with a stitch similar to previous one.



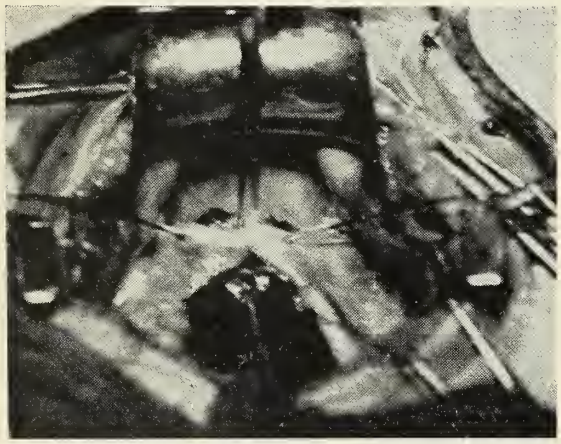
1. The round and ovarian suspensory ligaments have been cut and tied, ties left long.

ther simplifies the operation and contributes to the strength of the upper pelvic floor without introducing any more suture material into the cervix.

A needle is threaded on one end of the tie and passed from the posterior surface of the cervix through the round ligaments to the anterior surface of the anterior lip. This is repeated with the other end and the two tied together in front, thus closing one half of the cervix. The same stitch is used on the other side of the center stitch. After the two lateral cervical stitches have been tied, the center suture is tied and cut. The margins of the anterior and posterior lips of the cervix should come together and completely cover the round ligaments. If this is not the case, an additional fine suture may be placed to draw the two lips together over the united round ligaments.



2. Round ligaments crossed over and end of left has been sewn to right. Allis forceps attached to anterior and posterior lips of cervix.



3. Anterior and posterior lips of cervix will now be sewn together over the united round ligaments.

The operation is completed in the usual manner by peritonealizing the raw surfaces with the reflected bladder peritoneum.

COMMENT

This method has been most satisfactory and has worked well in my hands. The only disadvantage is the theoretical possibility of infection spreading from the cervix along the round ligaments. However, in the last 64 hysterectomies which were done by this method there was no evidence of infection. Patients were ambulatory in two or three days and there have been no unusual complications. Of course one should take care of a badly infected cervix previous to operation. This method was also used to suspend a prolapsed cervix after a hysterectomy performed elsewhere.

ADVANTAGES

The advantages of this method are: 1. Good control of bleeding. 2. The cervix is always in the midline, even if the round ligaments are of unequal length. 3. Stronger support of the cervix. 4. Less suture material placed in the cervix, only three stitches being required for closure and suspension of the cervix.

SUMMARY

A new method of suspending the cervical stump after abdominal hysterectomy is described which appears to have certain definite advantages. The principle is the suture of the anterior and posterior lips of the cervix around and over the previously united, overlapping, round ligaments.

Federal Allocation for Mental Health

Kansas will receive an allocation of $45,000 for mental health activities for the fiscal year 1949, according to an announcement made recently by Federal Security Administrator Oscar R. Ewing, who told of plans for distributing the appropriation of $9,028,000 for the United States as a whole.

The mental health program, authorized by Congress in 1946, includes a three-fold program of research of mental illness, the training of mental health personnel and the development of local mental health facilities, in addition to mental health activities within the Public Health Service.

Congress appropriated $3,550,000 of the total amount for grants-in-aid to states, on a matching basis, two federal dollars to every state dollar, taking into account the population, financial need, and extent of the mental health problem. These funds are used by the states for developing and expanding mental health programs at state and community levels, including such activities as central administrative services, clinics, professional consultative services, training of personnel for local work, and educational activities. Funds may not be used for the operation of mental hospitals.

EXECUTIVE OFFICE

Material for this column is taken from articles coming to the attention of the Executive Office. They may concern controversial issues and will not necessarily reflect the editorial opinion of the Journal. Articles republished or summarized here are presented because it is believed they will be of interest to the medical profession in Kansas.

The Brookings Report

With the publication a few months ago of the Brookings Report the battle on socialized medicine began all over again. At the request of Senator H. Alexander Smith, chairman of the Subcommittee on Health of the Senate Committee on Labor and Public Welfare, the Brookings Institution surveyed this nation with reference to the need for government control of medicine.

The report is lengthy and filled with a surprising amount of data. The distribution of medical care was studied. Draft rejection statistics were investigated, as well as the cost of medical care. Included also in this report is a review of the experience in nations where socialized medicine has been in practice.

The Brookings Report gives 15 specific conclusions, and it is not surprising to find those senators and others in this nation who have advocated socialization immediately finding fault with the report as a whole and especially with the conclusions. It is heartening, however, that a reliable institution, presumably disinterested in the emotional battle over this subject, finds the argument of the medical profession correct in this issue. On that basis it was felt that a review of these 15 points might be of interest. They are summarized below.

1. Probably no great nation in the world has among its white population better health than prevails in the United States. A few small homogeneous countries, such as New Zealand with respect to its white population, are slightly ahead of the United States as a whole, but certain states in the United States with larger populations equal them.

2. It is apparent that the United States under its voluntary system of medical care has made greater progress in the application of medical and sanitary science than any other country.

3. The nonwhites in the United States have materially poorer health than the whites, but the evidence does not indicate that this condition is primarily or even mainly due to inadequacy of medical care.

4. The advances in health among both the whites and the nonwhites that have been made in the United States in the past four decades do not suggest basic defects in the American system.

5. Although the statistics resulting from the administration of the Selective Service Act—the so-called draft statistics—have been widely used to show bad health among the American people and the need for revolutionary changes in arrangements for medical care of individuals, they are unreliable as a measure of the health of the nation and cannot be used to show the extent of the medical needs of the country as a whole.

6. Present medical care in the United States compares favorably with that which existed in other leading nations prior to the second World War.

7. The conditions in extremely poor rural areas that lack the resources to support adequate public services, such as health work, education, and highways cannot be satisfactorily solved by subsidies. This problem calls for a radically different approach, either bringing in new or improved economic activities or getting the people to more favorable and administratively less expensive areas.

8. The United States has some individuals and families not possessed of the resources to enable them to pay for adequate medical care. In the future, as in the past, provision must be made for them through public funds or philanthropy. . . . The issue is not whether they can afford medical care but whether they should be compelled by law to pool their risks and to give payment for medical care a top priority.

9. Compulsory health insurance would necessitate a high degree of governmental regulation and control over the personnel and the agencies engaged in providing medical care. This field of regulation and control would be far more difficult than any other large field previously entered by the government, and past experience with governmental regulations and control in the United States causes doubt as to whether it encourages initiative and development.

10. The problem of eliminating politics from government administration is extremely difficult.

11. Compulsory insurance would inject the government into the relationship between practitioner and patient. A real danger exists that government actions would impair that relationship and hence the quality of medical care.

12. The administration of compulsory insurance would require thousands of government employees for accounting, auditing, and inspection, and investigation.

13. The cost of medical care presumably would increase because of (a) administrative expenses; (b) the tendency of insured persons to make unnecessary and often unreasonable demands upon the medical care services; and (c) the tendency of some practitioners and agencies to take advantage of the system for their own financial advantage.

14. The adoption of compulsory insurance would not immediately make available adequate service for all, because there are not at present the facilities nor a sufficient number of trained and experienced physicians, dentists, and nurses to meet the demand which would result from compulsory insurance.

15. Proposals for compulsory insurance provide for payment of practitioners under one or all of three methods: (a) fee for service, (b) per capita, or (c) salary. Use of the fee for service device represents the minimum degree of socialization, but is is administratively difficult. Administrative difficulties would probably result in the adoption of the per capita system which represents a higher degree of socialization or even in the salary system which represents practically complete socialization. It seems questionable whether a country which once embarks on compulsory insurance can turn back but must attempt to remedy defects by more complete government control and administration.

V. A. Authorization

It is again announced by the Committee on Veterans Administration Affairs that the Veterans Administration will not assume responsibility for payment for services rendered veterans in Kansas until the physician has received authorization. All care rendered or prescriptions purchased under this program without proper authorization will be denied for payment by the Veterans Administration.

PREMATURE INFANTS

Importance:

Between 400 and 500 premature babies die annually in Kansas. It is the eighth cause of all deaths in Kansas. The national mortality from prematurity has changed very little; in fact in some sections of the nation there has been an increase in premature deaths.
Prevention of premature mortality:

A. Obstetrically.
   1. An extension of the term of gestation as long as possible.
   2. Minimum sedation and anesthesia during delivery.
   3. Slow careful delivery avoiding trauma to head.
B. Adherence to "Standards for the Care of Premature Infants" established by the Child Welfare Committee.
C. Adequately trained nurses and physicians available.
D. Arrangement for follow-up after hospital dismissal.

EMERGENCY CARE

(after Clifford, S. H.)

First 48 hours—during which occurs 90% of the mortality, therefore:

1. Atmosphere of 60% oxygen for *all* cases.
2. Continuous observation by well-trained personnel.
3. Stabilize body temperature at about 97°-99°.
4. Lumbar puncture if unsatisfactory condition due to intracranial hemorrhage.
5. Immediate surgical care where indicated.

Emergencies encountered after the first 24 hours:

1. *Edematous infant*—due to anoxic damage to the capillaries with escape of fluid to the tissues. ALLOW THE PREMATURE TO ABSORB ITS OWN EDEMA FLUIDS before administering fluids by mouth or parenterally.
2. *Cyanotic infant*—question of pathology in brain, heart, or lung.
   a. Baby with cerebral edema of hemorrhage—fontanelle may be distended. Lumbar puncture.* If bloody, repeat every three days until fluid normal. Always smear and culture.
   b. Congenital heart disease may or may not be accompanied by a murmur, but a congenital cardiac lesion sufficient to cause cyanosis will usually be accompanied by hypertrophy evident on roentgenologic examination. (Sanford, H. N.) X-ray chest of all prematures.
   c. Atelectatic baby—massive atelectasis, marked respiratory distress, marked retraction of the sternum and costal margin, even collapse of the chest wall. Treat with at least 60% oxygen.
3. *Vomiting infant*—consider congenital abnormalities, intracranial hemorrhage, other intracranial pathological changes, faulty feeding technique, and infection. These infants frequently have spinal fluid under pressure, relieved by repeated lumbar puncture. Possibility of aspiration is minimized if a small infant is fed small amounts every 2 or 3 hours by gavage feedings.
4. *Apneic infant*—a premature doing well suddenly stops breathing. The infant may quietly die if the episode passes undetected or if stimulants and artificial resuscitation are not given. Lumbar puncture may be of value.
5. *Convulsing infants*—sedate—careful study of spinal fluid; infection may be present as well as anoxia.

*Lumbar puncture in the premature is usually done (1) with minimal handling, (2) in the sitting position, (3) with an ordinary hypodermic needle, and (4) with due regard to maintaining body temperature.

Prepared by Committee on Child Welfare

CANCER OF THE THYROID

Cancer of the thyroid occurs most commonly between the ages of 40 and 70, and predominantly in women, in ratio of 7:1. 90 per cent of these tumors arise in pre-existing and long-standing adenomas. The condition is much more common in endemic goiter areas (2.5 to 4 per cent of all malignant tumors as compared with 0.4 or 0.5 per cent). It is not related to exophthalmic goiter, and there is no associated elevation of the basal metabolic rate in cancer of the thyroid.

Pathologically it is oftentimes difficult to absolutely differentiate a malignant from a benign process in adenomas of the thyroid. "It should be emphasized that the microscopic appearance of the benign adenoma may suggest a malignant lesion, but if encapsulation is present and there is no evidence of blood vessel invasion either grossly or microscopically, the tumor must be classed as benign. By contrast, it may appear benign because of its regular pattern, but if blood vessel invasion and invasion of capsule are present, it is malignant.

"About 3 per cent of all adenomas show evidence of blood vessel invasion. If this invasion is shown grossly, they must be classified as definitely malignant. If invasion is present only on microscopic examination, the adenomas should be regarded as potentially malignant, although there is a 95 per cent chance that the tumor will never show any evidence of metastases." (Ackerman and del Regato)

The first spread of thyroid cancer is to the regional lymphatics which are along the internal jugular vein. The thyroid is to be thought of as one of the more common sources of metastatic carcinoma in bone, where it produces osteolytic lesions.

A clinical diagnosis is made in less than one-half the cases of thyroid cancer. It should be considered a possibility when there has been any gradual change in a pre-existing adenoma of the thyroid or when at operation there is a loss of cleavage planes or the prethyroid muscles are adherent to the gland, or if the contour of the thyroid is lost. Cases having a lesion suspicious of cancer of the thyroid should have x-ray examination of the chest and bones (skull, vertebrae, sternum, and humerus are most commonly involved) for possible metastatic lesions.

The most significant feature of treatment is the fact that 90 per cent of the carcinomas of the thyroid could be prevented by the removal of pre-existing adenomas. In a case which is suggestive of carcinoma, the excision should include the entire lobe and the isthmus of the gland. If there is extension of the tumor beyond the capsule a long segment of the internal jugular vein should be removed, and if there is any gross lymph node involvement, a block dissection of the regional nodes is indicated.

X-ray therapy is of value as a palliative measure in recurrences or metastases but should not be relied upon for the main attack on the primary lesion.

The prognosis in adenomas showing blood vessel invasion is still good; in lesions of moderate grade of malignancy it is also good; but in the highly malignant tumors, the outlook becomes almost hopeless regardless of the type of treatment.

Remove the "harmless" adenoma of the thyroid before it ceases to be harmless.

Prepared by Committee on Control of Cancer

PRESIDENT'S PAGE

Dear Doctor:

A statement has been made recently that many members, including myself, have changed our attitude toward the medical school.

I have discussed the matter with a number of men, all of whom agree that a change in attitude of the medical school has prompted the most promising alumnus response in years.

I wish I could detail for you many of the things about the medical school which would cheer you. Under a new policy now in operation 100 per cent of the beds are classed as teaching beds. Efforts are being made to speed service to the end that these beds will be available for more patients.

Reports to referring physicians will be forthcoming more promptly, and all reasonable efforts are being made to reduce competitive practicing. It still remains the only state educational institution that must earn 75 per cent of its operating expenses.

You will be delighted, I am sure, when you learn of the accomplishments of Dr. Peck and his Committee on Endowment in their efforts to correlate the support of various groups in the state for much needed expansions if Kansas University is to furnish its necessary quota of doctors for the state.

You will be glad to learn of the fine contribution made to our Society by members of the Missouri State Medical Association. They raised more than $5,000 by voluntary donations. This, in addition to the services rendered and paid for by the A.M.A., helped a great deal and has been duly acknowledged.

About the time you receive this letter we will be holding our first conference for instruction of all county society presidents and secretaries. I believe this will result in one of the most beneficial meetings of the year. A schedule has been set up which includes a discussion of practically every problem that confronts the local society relating to the State Society, the Medical Auxiliary and the Medical Assistants Organization.

There is an old saying, "An informed public is an intelligent public." I am willing to cast my lot with an informed medical profession. While others are making such an issue of social rights under the guise of civil rights, we have much to do in the matter of coordinating our professional activities.

The meeting of the council will be held in Topeka on October 3, just the day before the start of the Kansas City Southwest Clinical Society conference. The program of this fall conference promises to be the best yet presented and should command your attendance.

At the council meeting many important issues will be discussed. All committee chairmen plus members of the Blue Shield and Blue Cross boards will be invited to attend. General Hawley will be present to explain Blue Cross and Blue Shield relations. Dr. Beasley of St. Louis, from the Veterans Administration, will be present to hear the arguments for and against our veterans' program. Reports will be made by delegates to the N.P.C. Dr. Peck and Dr. Murphy will explain their plans for the medical school.

All in all, this is a very busy season for everyone. I sincerely hope you will find it possible to attend one of these meetings. I get a new inspiration every time I attend one of our state society committee meetings, and it seems there is some meeting all the time. Our committees are doing a fine job.

Sincerely yours,



President.

EDITORIALS

Cesarean Sections

Maternal mortality in Kansas was lower during the last year than ever before. This record brought our state near the top for the entire nation and is a splendid tribute to the physicians in Kansas who are doing obstetrical work. Further reductions can be achieved only through widespread public information and if every physician remains alert to the complications that might arise. The Committee on Maternal Welfare for the Kansas Medical Society has become interested in the apparent increase in cesarean sections and will shortly issue a report in the Journal.

An article in the August 12 issue of the New England Journal of Medicine on cesarean sections performed at the Boston City Hospital between 1936 and 1946 indicates that other areas of the country are also studying this problem. A total of 961 cesareans were performed, or a percentage of 3.3. Twenty-eight per cent of the abdominal deliveries were done on primigravidas. Of the remainder, 87 per cent had had one or more previous sections. Only eight per cent of this series involved multiparas with previous normal deliveries. About half had had previous sections and one patient was delivered for the seventh time by way of cesarean section.

In general if the patient had a section on her first delivery, all subsequent pregnancies required like treatment. Patients with a vaginal delivery prior to the first section were generally given a test of labor under careful observation before ordered to surgery. Those having had more than one cesarean section were not permitted to enter labor and another section was done within the last four weeks of pregnancy or when the estimated weight of the fetus was five pounds or over.

Specific indications for cesarean section were varied in this series, but it is somewhat surprising to find only one in a hundred that was performed for disproportion. Four per cent were performed because of abnormalities in the propulsive factors of labor. Primiparous breech delivery was the causative factor in only 1.5 per cent of the cases. There were 1,200 breech presentations but only 17 cases, all in primiparas, required cesarean section. Other indications were placenta previa, premature separation of the placenta, severe toxemia, eclampsia, ruptured uteri and rheumatic heart disease.

Maternal mortality was 2.4. About one-third of these patients sought medical care only after the condition had become acute. Some were in severe shock and badly exsanguinated. Others had been in labor 48 hours and more before arriving at the hospital. In this series the greatest cause of death was hemorrhage; the second cause of death, peritonitis; then followed embolism, anesthesia and cardiac decompensation. Those, in the order named, accounted for the death of more than 90 per cent of the cases, the first two responsible for over 50 per cent.

Of primary interest for the purposes of this editorial is the fact that cesarean sections, after rising, dropped off abruptly in 1939 when x-ray pelvimetry was adopted as an additional check to see if the patient could deliver through normal channels. Since 1943 Massachusetts physicians have been more radical in their choice of abdominal delivery until now the percentage of such cases is higher than ever before. It is suggested that this is due to the protecting influence of the blood bank, the sulfonamides and penicillin. It is our opinion that cesarean section should be undertaken only when clearly indicated and not on the basis that defense measures are available if complications should arise.

For instance, it is well established that a patient with a decompensated heart will tolerate normal delivery, if rapid, as readily as an abdominal operation. Therefore, unless other indications are present, the mere fact that the patient has a rheumatic heart should probably be listed as a contraindication for cesarean section. Attention should be given to the choice of anesthetic and more especially is adequate care necessary if spinal anesthesia is to be selected. Transfusions of whole blood should be given early, rapidly and in large amounts. Cesarean sections should not be attempted while the patient is in shock. Sepsis, next to hemorrhage, is the greatest danger in cesarean sections after rupture of the membranes and prolonged labor. Those patients should receive early sulfonamide and penicillin prophylaxis. In the frankly infected cases the extraperitoneal operation should be performed.

In severe toxemia and for certain other conditions the cesarean section has a definite place in obstetrics. When carefully used it need not add to the risk involved but physicians should constantly remind themselves that unnecessary abdominal deliveries are dangerous. It has been suggested by the Kansas Committee on Maternal Welfare that if every woman on whom a cesarean section was performed were given in writing a statement indicating the reason for this procedure, several advantages might be obtained. First, there might result a more conservative approach to this problem. Second, it might spare the physician embarrassment or criticism at a later time. Third, it might save the pa-

tient's life if, during a later pregnancy, she employed another physician.

On Truth

"What is truth?" asked a king of his jester and left before the fool could reply. Today science is truth in the eyes of the world. It is the atom bomb and penicillin, the 200-inch lens for viewing the heavens and the electronic microscope, television, the oil well, radar, that men live by.

But ask them what is truth and they will leave you. The evolution of thought in the history of this world may be traced through the work of very few individuals during any generation. The public in general is content to believe or discredit a statement on the strength of how often it is repeated and how loudly it is told, even though decision is made on a basis of the cumulative effect of repetition rather than because of its logic. People want their science doled out with broad assurance, as though this discovery or invention is the ultimate, the culmination of man's reason for being on the earth.

The public is not interested in a relative truth. Let a magazine say that streptomycin has conquered tuberculosis and the average man becomes impatient with the physician who says it isn't that simple. He leaves to tie his future to the story he wants to believe. Now that the rocket can rise 100 miles, he wants to book passage to the moon and has no interest in hearing why his reservation has been delayed.

His attitude is different from 100 years ago. Then he thought everything was discovered; now he is convinced that nothing is impossible, but he wants it all today. He wants his television set this evening, and his cancer cure. He wants to believe that the United States can whip the world, that tomorrow we will fly 1,200 miles an hour, that medicine can discover a specific against every disability known to man.

And once armed with this power he is prepared to take over its use. He is now ready to assume control over the program of medical care, for instance. Completely disinterested in the science of medicine, entirely innocent of the relation between medical knowledge and its application, he is prepared to divide the two. As a citizen he will leave the discoveries to the profession but will assume full responsibility for the administration of these discoveries. He has never understood the truth about the dependence of the two fields.

Actually he refuses to stay for the answer. What he wants to know is, "Will streptomycin cure tuberculosis or will it not?" The magazine says yes, while we confuse him with a description of various types of tuberculosis and a story on the need for more experimentation and with technical phrases about toxicity, drug resistance, etc. He wants to know, "Is socialized medicine good or bad?" On the one hand he is told it is fine, and we characteristically evaluate its shortcomings, presenting our argument from the only approach we know, the scientific. Since that is exactly the approach least understood by the average person, it is not surprising to learn who he prefers to believe.

Perhaps we should examine our own efforts at influencing public opinion before condemning a public if its views fail to coincide with our own. The layman weighs his information according to the depth of his understanding and is quite naturally persuaded by the statement that speaks most clearly to him. It becomes our responsibility to find a voice that will appeal to the public. On the other side of the question we call it propaganda and shun the idea. But whatever the term, it is actually public instruction and that can never be of value unless the public will understand and believe what is being said. Then people will stay to listen.

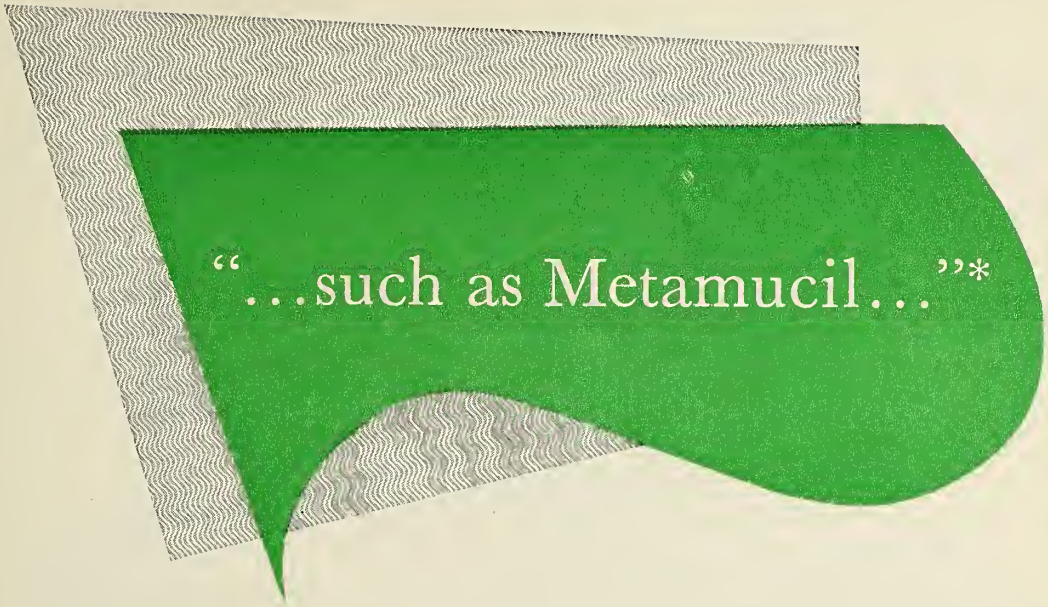
Incidence of Smallpox

According to a recent report by the Metropolitan Life Insurance Company, smallpox is rapidly approaching extinction in the United States. Except for the experience of the midwestern states there were almost no smallpox cases in this nation last year. The total was 173 cases, which is a reduction of 98 per cent in the last ten years.

Seventeen states and the District of Columbia were entirely free from this disease in 1947, and six additional states reported only one case each. Rhode Island, with the best record in the United States, has not had a case of smallpox reported in the last 20 years.

Kansas is one of six midwestern states responsible for over half of the total smallpox cases in the nation last year. This state tied with Ohio as third from the highest with 13 cases reported. Only Texas and Indiana had more.

For a few weeks it seemed as though the good record of this nation would be ruined when a sudden smallpox epidemic developed in New York City. Twelve cases appeared in short succession and then the health department, with the cooperation of the medical profession, the press, the radio, and major organizations in the city, began a mass immunization program. In less than one month 6,000,000 people were vaccinated, over 5,000,000 of these within two weeks. Following that project not another smallpox case occurred.



For the treatment of the spastic colon the author suggests diet, elimination of the nervous element and "bulk producers." As examples of these he lists "agar-agar, in finely powdered form, in flakes, or in cereal-like form; derivatives of psyllium seed, such as Metamucil . . . ."*

METAMUCIL

"SMOOTHAGE" IN CONSTIPATION

—"encourages elimination by the formation of a soft, plastic, water-retaining gelatinous residue in the lower bowel."†

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Metamucil is the highly refined mucilloid of Plantago ovata (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

Metamucil is the registered trademark of G. D. Searle & Co., Chicago 80, Illinois.

*Glafke, W. H.: Spastic Colon, M. Clin. North America 26:805 (May) 1942.

†Council on Pharmacy and Chemistry: New and Nonofficial Remedies, 1947, Philadelphia, J. P. Lippincott Company, 1947, p. 320.

The medical profession does not need to be convinced of the value of smallpox vaccination, nor is the illustration concerning the experience in New York City impressive. The problem is rather one of public education, and since the public will not provide its own motivating force the stimulus must come from elsewhere. There is every argument to support the contention that the medical profession should direct the public in this matter. The story should be told in a manner that is interesting and yet convincing. This, by way of example, is one of the public services that the Kansas Medical Society might perform. If this had been accomplished a year ago, 13 victims of this disease could have been spared that illness and Kansas, instead of representing one of the most backward areas in the United States in this respect, could quickly and easily have eliminated the disease. Included in the expanding program of public relations of the Kansas Medical Society should be the project of smallpox eradication. It is doubtful that this can be accomplished successfully through legislation. It must then be a cooperative project in which each member of the Society participates.

General Practitioner Award

At the interim session of the American Medical Association to be held in St. Louis in December, the House of Delegates will make its second annual selection of the outstanding general practitioner of the United States. This year all candidates to be considered will be submitted by state societies. Each state is eligible to give the name of one candidate. The Board of Trustees will eliminate all but three and the final selection will be made among those three by the House of Delegates.

It is suggested that these nominations originate with the component societies within a state, that in Kansas for instance each society submit to the executive office the name of one Kansas physician who is considered to be outstanding in the field of general medicine or who, for one reason or another, has made an unusual contribution. Dr. Davidson will then appoint a committee to select one from the nominations received. The name of that one member, together with biographical material, will be submitted to the Board of Trustees of the A.M.A.

If all component societies take an interest in this project, it is easily possible that a member of the Kansas Medical Society may be selected to receive the honor of being the outstanding general practitioner in the United States this year. Even if that were not accomplished, it might serve as a project of the Kansas Medical Society whereby each year at the annual banquet the selection would be made of the outstanding member in general practice. This could be made part of the annual meeting and each year represent the nomination sent to the A.M.A. by the Kansas Medical Society.

It is sincerely hoped that enough individual members will take an interest in this project that each society within Kansas will submit a name for consideration.

Book on Heart Disease Recommended

The Committee on the Study of Heart Disease at a recent meeting discussed the lack of uniformity in reporting heart cases. This is evident in the variations noted in the reporting of deaths due to cardiac failures, in the reporting of heart conditions for veterans' examinations and when physicians in general practice discuss heart cases.

There is a well outlined, accurate, informative booklet on this subject which the committee recommends to the entire medical profession. It will be of great assistance for reference in the care of patients with heart disorders. Its use by the medical profession in Kansas will standardize and give meaning to all diagnoses of heart conditions.

The book is entitled "Criteria for the Classification and Diagnosis of Heart Disease" and it is published by the American Heart Association. The cost is nominal and the book may be obtained by ordering through the American Heart Association, 1790 Broadway at 58th Street, New York, New York. If this were on the desk of each Kansas physician and used regularly, it would be of assistance in several ways and would quite materially benefit in standardizing heart work in this state.

Aid in U. N. Medical Work

Two tuberculosis experts from the U. S. Public Health Service, Dr. Carroll Palmer and Dr. Lydia Edwards, are joining the international staff now engaged in the anti-tuberculosis vaccination program of the United Nations, it was announced recently by the U. N. International Children's Emergency Fund. They will work on the research end of the undertaking at a serum institute in Copenhagen.

The vaccination project, which is a joint enterprise of the Children's Fund, the World Health Organization and the Danish Red Cross and its Scandinavian associates under the direction of Dr. Johannes Holm of Denmark, is the largest mass immunization ever undertaken. It calls for the testing of between 40 and 50 million children in Europe alone, and the vaccination of all found uninfected. Plans are being made for setting up similar programs in Algeria, Morocco, Tunisia and China, and extension of the program to countries in southeast Asia and in Latin America is contemplated.

The two United States specialists will work on setting up studies to measure the effectiveness of the vaccine. Millions of records will be gathered to form the basis of one of the greatest epidemiological studies ever made.

Dr. Palmer has been with the research office of the tuberculosis control unit of the U. S. Public Health Service since its organization five years ago. Dr. Edwards, prior to joining the health service, was in charge of the children's tuberculosis clinic in Johns Hopkins University in Baltimore.

For surface infections . . .



Although burned tissues supply an excellent medium for bacterial growth, infection may be minimized by the prompt, topical application of an efficient antibacterial agent. For this purpose, fine-mesh gauze strips impregnated with Furacin Soluble Dressing may be used. The effectiveness of Furacin in combatting mixed infections of burns without delay of healing has been well demonstrated.* Furacin N.N.R., brand of nitrofurazone, is available as Furacin Soluble Dressing and as Furacin Solution, both containing 0.2 per cent Furacin.® These preparations are indicated for topical application *in the prophylaxis and treatment of infections of* wounds, second and third degree burns, cutaneous ulcers, pyodermas and skin grafts. *Literature on request.*

EATON LABORATORIES, INC., NORWICH, N.Y.

*Snyder, M. L., Kiehn, C. L. and Christopherson, J. W.: Mil. Surgeon, *97*: 380, 1945. • Shipley, E. R. and Dodd, M. C.: Surg., Gynec. & Obst., *84*: 366, 1947 • Mays, J. L.: J. Med. Assoc. Georgia, *36*: 263, 1947. • Curtis, L.: Surg. Clin. N. America, 1466 (Dec.) 1947.

MEMBERS

Dr. T. T. Holt, Wichita, announced his retirement last month. He had been practicing since 1900 and had practiced in Wichita since 1924.

* * *

Dr. C. C. Underwood, Emporia, announces that Dr. Charles R. Hopper is now associated with him in practice. Dr. Hopper, a graduate of the University of Kansas School of Medicine, interned at the Kansas City General Hospital.

* * *

The Kansas State Board of Health announces that Dr. J. M. Mott, Lawrence, director of the Lawrence-Douglas County health department, has been promoted to the rank of health officer, grade one, the third physician in Kansas to be so recognized. Dr. Mott is also serving as state surgeon for the Kansas National Guard.

* * *

Dr. R. R. Snook, for several years director of student health at Kansas State College, Manhattan, has resigned that position to enter private practice at McLouth. Dr. B. W. Lafene, Manhattan, has been appointed to the college position.

* * *

Dr. F. W. Tretbar, Stafford, announces that Dr. C. Everett Brown is now associated with him in practice. A graduate of the University of Kansas School of Medicine, Dr. Brown has been on the staff of Denver General Hospital and has served as police surgeon in Denver.

* * *

Dr. F. E. Bishop, Topeka, has resigned his position with the Department of Tuberculosis Control of the Kansas State Board of Health and is now practicing in Atwood in partnership with Dr. E. T. Gertson.

* * *

Dr. Charles L. Williams, Wichita, has enrolled at the University of Kansas School of Medicine for a six months postgraduate course and will return to Wichita early next year.

* * *

Dr. Floyd L. Smith, who has been with the Eddy clinic at Hays during the past year, has opened an office for practice in Colby.

* * *

Dr. Thomas R. Hood, director of the Cowley County Public Health Department, will speak at a meeting of the American Public Health Association in Boston in November and will describe the organization and progress of the Cowley County unit.

* * *

Dr. Harold O. Bullock, Independence, has been appointed health officer for Montgomery County.

Doctors Nullify Pharmaceutical Benefits Act

Enactment by the Australian government of a pharmaceutical benefits act, which went into effect June 1, "has been nullified by the combined action of the medical profession," according to the Australian correspondent who reported on the situation to the Journal of the American Medical Association.

The act provides free medicine to any Australian citizen, providing the medicine is prescribed by a doctor on specific forms furnished by the government and within the restrictions of a formulary drawn up by a committee appointed by the Minister of Health.

The correspondent said in part, "Far from being annoyed at the refusal of the doctors to take part in the scheme, the Australian public is apathetic, and adopts the attitude of a detached spectator of a battle of tactics. There is a growing public aversion to socialization in Australia. Two days before the plan was brought into force, the people, through a referendum, gave an emphatic negative to the government's referendum on price fixing."

There are three general objections ot the pharmaceutical benefits act: 1. It is the beginning of a national medical service by backdoor methods. 2. It is both difficult and dangerous to make a patient's disease fit a formulary. 3. The scheme places in the hands of the director-general of health the complete control of medical prescribing.

Clinical Society Conference in Kansas City

The 26th annual conference of the Kansas City Southwest Clinical Society will be held in Kansas City, Missouri, October 4-7, inclusive. Sixteen guest speakers will present the scientific program and 42 members of the society will participate in the morning sectional lecture groups. The program will also include scientific movies and scientific and technical exhibits.

On Monday evening there will be a joint meeting with the county medical societies. Rear Admiral H. L. Pugh, assistant surgeon general of the Navy, and Colonel William H. Amspacker, chief of procurement of the Army, will discuss the future of the medical profession as it relates to the military services. Dr. Howard T. Karsner, professor of pathology of Western Reserve University, will conduct a clinicopathologic conference, with nine guest speakers participating.

There will be two daily round table luncheons, one featuring general medicine and medical specialties and the other featuring surgery and surgical specialties. An hour will be devoted to questions and answers. A social evening has been planned for Tuesday.

The registration fee for the conference will be $15.

Complete information may be secured from the Kansas City Southwest Clinical Society, 630 Shukert Building, Kansas City 6, Missouri.

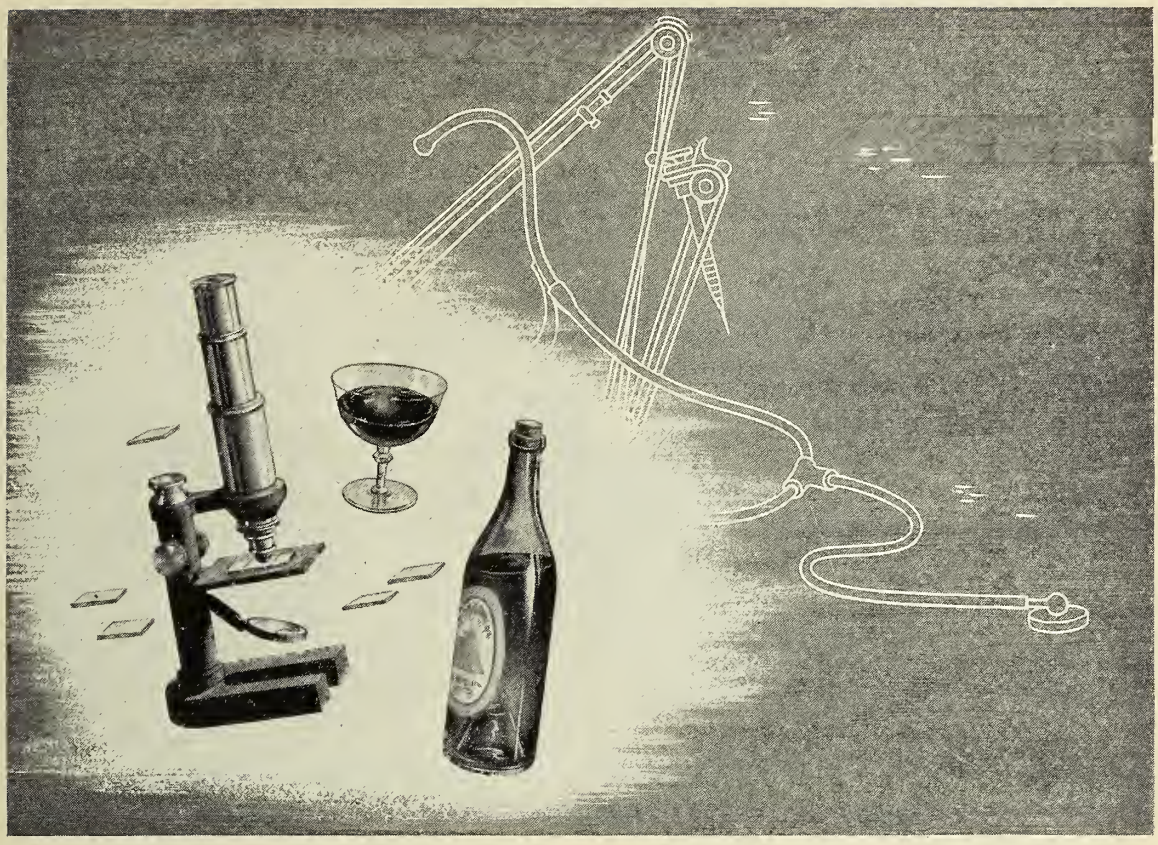
Number of Physicians Increasing

The number of physicians in the United States is increasing more rapidly than the number of persons living in this country, according to a survey made recently in the offices of the American Medical Association. There has been an increase of 17 per cent in the number of physicians since the last A.M.A. directory was issued in 1940, making the estimated total now 199,755. The population in the United States has increased only 12 per cent in the same period of time, the report indicates. The figures were prepared by the Bureau of Medical Economic Research.

DEATH NOTICES

EBEN SETON McINTOSH, M.D.

Dr. E. S. McIntosh, 81, who had practiced in Burns since 1901, died at a Newton hospital August 7. He received his medical education at the University of Wooster, Cleveland, Ohio, graduating in 1894. He served as Cleveland city physician for several years and took postgraduate work in Chicago before coming to Kansas. He was an active member of the Marion County Medical Society.



The First Bacteriology...

Medicine and Dentistry honor Louis Pasteur (1822-1895) and Robert Koch (1843-1910) as the co-founders of bacteriological science.

Pasteur proved that certain micro-organisms present in the air caused the fermentation of milk, wine and beer . . . that certain animal diseases were spread by still other bacteria. His reports stimulated valuable research into the new science by others—notably Lord Lister, who grasped their significance for surgery and introduced sterilization to the operating table in 1865.

Koch, the young German physician whose fancy turned to germ-study when his wife gave him a microscope for his birthday, developed an accurate and scientific method for the separation of pure cultures of disease-bacteria, and for their use in animal inoculation. Discovery of the germs of the more common diseases, and protective measures against them, were rapid after 1880.

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Trudeau Society Reports on BCG Vaccine

The American Trudeau Society, medical section of the National Tuberculosis Association, recently released a statement of its present policy on BCG vaccine. The report follows:

The members of the society and other physicians in the United States have been interested for many years in active immunization against tuberculosis with BCG. The expansion of public health activities in the field of tuberculosis control by official and voluntary agencies and the acquisition of new knowledge concerning immunity in tuberculosis have prompted the American Trudeau Society to make the following observations and recommendations:

I. BCG vaccine, prepared under ideal conditions and administered to tuberculin negative persons by approved techniques, can be considered harmless.

II. The degree of protection reported following vaccination is by no means complete nor is the duration of induced relative immunity permanent or predictable. The need for further basic research on the problem of artificial immunization against tuberculosis is recognized and is to be emphasized. Studies should be directed: (a) toward the improvement of the immunizing agent, (b) to the development of criteria for vaccination and re-vaccination, and (c) to determine more accurately which groups in the general population should be vaccinated. Several well controlled studies are under way at the present time and it is expected that others will begin within the near future.

III. On the basis of studies reported in the European and American literature, an appreciable reduction in the incidence of clinical tuberculosis may be anticipated when certain groups of people who are likely to develop tuberculosis because of unusual exposure, inferior resistance, or both, are vaccinated.

A. In the light of present knowledge vaccination of the following more vulnerable groups of individuals is recommended provided they do not react to adequate tuberculin tests.

1. Doctors, medical students and nurses who are exposed to infectious tuberculosis.

2. All hospital and laboratory personnel whose work exposes them to contact with the bacillus of tuberculosis.

3. Individuals who are unavoidably exposed to infectious tuberculosis in the home.

4. Patients and employees of mental hospitals, prisons and other custodial institutions in whom the incidence of tuberculosis is known to be high.

5. Children and certain adults considered to have inferior resistance and living in communities in which the tuberculosis mortality rate is unusually high.

B. Vaccination of the general population is *not* recommended at this time except for carefully controlled investigative programs which, as a rule, will be best carried out under the auspices of official agencies such as the U. S. Public Health Service, state and municipal health departments and other especially qualified groups.

IV. BCG vaccine should not be made available for general distribution in the United States at this time because: (a) the most effective strain of BCG has not been agreed upon nor has fully satisfactory standardization of the vaccine been achieved, (b) the best qualified experts have not agreed as to the most effective method of vaccination, and (c) fully satisfactory arrangements have not been perfected for transportation and storage of the vaccine.

The vaccine should be prepared only in accredited laboratories especially devoted to this task, in which virulent tubercle bacilli are not cultivated or handled and in which all other possible precautions are exercised to assure safety and quality of the product.

Adequate record systems should be devised for management of the statistical problems involved in recording and following large numbers of vaccinated people. These and other problems of particular importance are now being studied on an extensive scale by official and voluntary agencies in the United States and in close collaboration with European scientists experienced in this field.

V. The Society believes that since BCG vaccination affords only incomplete rather than absolute protection, the most effective methods of controlling tuberculosis in the general population are: (a) further improvement of living conditions and the general health, (b) reduction of tuberculosis infection, which can be accomplished by modern public health methods and the unremitting search among presumably healthy individuals for patients with infectious tuberculosis, (c) prompt and adequate medical and surgical treatment of patients with active disease, (d) segregation and custodial care of those not amenable to accepted forms of therapy, and (e) adequate rehabilitation.

Fortunately, great advances have been achieved during recent years in the development of diagnostic methods applicable on a mass scale and there have been significant improvements in the surgical and medical treatment of tuberculosis. The expansion of modern diagnostic, therapeutic and rehabilitation facilities is required at this time to make full use of these new methods which can accomplish further dramatic reduction of tuberculosis mortality and morbidity rates in the United States.

It is to be emphasized that BCG vaccination must not be regarded as a substitute for approved hygienic measures or for public health practices designed to prevent or minimize tuberculous infection and disease. Vaccination should be regarded as only one of many procedures to be used in tuberculosis control. Vaccinations seems unwarranted: (a) in areas in which the tuberculosis mortality rate is extremely low and (b) in localities in which the tuberculin test is of especial value as a differential diagnostic procedure.

For Medical Editors and Writers

The fifth annual meeting of the Mississippi Valley Medical Editors' Association will be held at the Hotel Abraham Lincoln, Springfield, Illinois, September 29. Dr. Vincent T. Williams, Kansas City, Missouri, will preside and Dr. Morris Fishbein, editor of the Journal of the American Medical Association, and Dr. Waltman Walters, editor of Archives of Surgery, will be guest speakers. All ethical physicians, especially those interested in medical writing, are invited to attend. A complete program may be secured from Dr. Harold Swanberg, Secretary, W.C.U. Building, Quincy, Illinois.

Cancer Conference in Texas

The second Southwest Regional Cancer Conference will be held in Fort Worth, Texas, on October 12 under the auspices of the Tarrant County Medical Society and the local unit of the American Cancer Society. The one-day program will consist of lecture sessions, a clinical luncheon with an open forum question and answer period, and a public meeting in the evening. There will be no registration fee. Complete information may be secured from the Tarrant County Medical Society, 309 Medical Arts Building, Fort Worth 2, Texas.



A GOOD NAME...

Old as the Industry

Canned milk first became prominent in civil war days. About the same time, 1865, Charles A. Page, while U. S. consul at Zurich, Switzerland, envisioned what the fixed qualities of canned milk could contribute to health improvement, the world over. He staked his future on his conviction.

From that day to this, Page consistently has been one of the reputable names in the evaporated milk industry — with a trai of plants from Switzerland to Kansas.

Over the years, doctors, through their own experience, have come to rely on Page quality and know-how. They have learned Page can be recommended with confidence.

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ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods and Nutrition

Surgical Methods for Blood Vessel Disorders

New surgical techniques, including vein grafts, prompted by war-heightened interest in certain blood vessel diseases and injuries, were described to members of the American Heart Association at its scientific session in Chicago in June.

Dr. Gerald H. Pratt of New York Hospital reported on the surgical treatment of aneurysms, which are bulges of arteries due to weakening or injury to the vessel walls. Dr. Pratt noted that this condition is not to be confused with varicose veins.

The development of aneurysms has occurred more frequently as a result of high speed air or ground travel or following gunshot and stab wounds. The recent war increased the frequency of such conditions and greatly stimulated interest in the treatment of resulting aneurysms. Increased longevity also has permitted more persons to reach an age at which degenerating changes in the blood vessels permit aneurysms to form.

Dr. Pratt's investigations revealed that both small and large aneurysms, in cases in which the blood vessels were not diseased, responded best to "end to end" suture, or the tying together of the healthy ends. In some instances they also responded to vein grafts linking the healthy ends of the blood vessels. Suturing was found to be the most effective measure, despite efforts to replace it with mechanical devices.

Among other papers presented at the session was a study indicating that plasma and blood transfusion may do some degree of good in overcoming shock associated with myocardial infarction, which is damage to the heart muscle following blockage of a coronary artery. The study was conducted by Dr. John J. Sampson and Dr. Isidore M. Singer at Mount Zion Hospital, San Francisco. In the cases studied, from two to five intravenous infusions of 200 to 500 cc. of human plasma or blood could be safely given to raise the blood pressure when it fell below a certain level. Although improvement shown was not extensive and the results could not be described as conclusive, in no instance were any bad effects noted as a result of the infusions.

Physical Rehabilitation Planned

A program of close cooperation between the armed services and other governmental agencies was planned at an inter-service conference on physical medicine and rehabilitation held in Washington June 28. The conferees discussed needs of servicemen, ex-servicemen and civilians, possible exchange of doctors for training, and methods of correlating the efforts of the various services.

It is the aim of each service to give the others benefit of advances already made in medical rehabilitation, techniques and organization. The advantages in such correlation are particularly evident in the case of the Veterans Administration, which may take over a patient after his treatment has been well advanced by the Army, Air Forces or Navy.

The discussions fell roughly into two groups: medical rehabilitation as the doctor's responsibility, and the role that physical medicine plays in returning the individual to full productive ability.

Schering Sponsors Scientific Film

The first of a series of scientific motion picture films on various phases of endocrinology was recently released by Schering Corporation. Films produced by the company may be obtained free of charge for showing before medical schools and medical societies.

The title of the first film is "The Physiology of Normal Menstruation." It is completely animated in color and is available with or without sound. The script was prepared by Dr. Somers Sturgis, associate surgeon at the Massachusetts General Hospital, and Dr. John Rock, clinical professor of gynecology at Harvard Medical School. The technical guidance of other endocrinologists was obtained.

Groups interested in seeing the film may secure it from the Medical Service Department, Schering Corporation, Bloomfield, New Jersey.

Foundation Prize Announced

The South Atlantic Association of Obstetricians and Gynecologists announces the establishment of "The Foundation Prize." Authors of papers on obstetrical or gynecological subjects desiring to compete for the prize may obtain information from Dr. E. D. Colvin, 1259 Clifton Road, N. E., Atlanta, Georgia.

Grants for Vitamin Studies

New grants-in-aid amounting to $16,000 were awarded July 1 to scientists at four universities for vitamin research, according to an announcement made recently by the National Vitamin Foundation, New York. The new investigations involve eye health, the nutritional status of school children, the relationship between pyridoxine and fat metabolism, and the effects of time elements on the utilization of water soluble vitamins.

The universities receiving the grants are Western Reserve, Cleveland, Ohio, University of Vermont, Massachusetts Institute of Technology, and the University of Southern California.

Studies Medical Practice in Britain

Dr. Morris Fishbein, editor of the Journal of the American Medical Association, left for London July 30 to study various aspects of the new British National Health Act. He will confer with Aneurin Bevan, minister of health, and officials of the British Medical Association. He plans also to meet with a group of general practitioners to study the effects of the new health act, a universal compulsory, tax-supported, government administered program, costing an estimated $720,000,000 during the first nine months.

Before returning to this country Dr. Fishbein will visit with physicians in France, Belgium, Holland and Denmark and with U. S. Army medical department installations in Germany and Austria. In September he will attend the World Medical Association meeting in Geneva, Switzerland.

Siliform Ampuls Potentially Dangerous

Members of the medical profession and druggists are being urged by the Federal Security Agency's Food and Drug Administration to return all stocks of Siliform ampuls to the manufacturer, the Heilkraft Medical Company, Boston, since the product is potentially dangerous.

A recent routine inspection at the Heilkraft factory disclosed that the ampuls had been manufactured without sterilization and samples collected on the market have been shown to contain living organisms. Recall efforts have not been completely successful and many sales cannot be traced. The Food and Drug Administration has found ampuls manufactured as long ago as 1946 on the market, and asks that doctors, hospitals, clinics, and retail and wholesale druggists check immediately to see that the product is not now stocked or used.

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Meonine may be used to supplement the protein-rich diet usually prescribed whenever the liver has been damaged by malnutrition, alcoholism, pregnancy, allergy, or toxins. And it is clearly indicated if this diet cannot be taken. There is no evidence, however, that Meonine is more effective than foodstuffs such as casein and egg white which contain pure methionine.

In early stages of cirrhosis, clinical results with Meonine have been most encouraging. Complete directions for use and bibliography supplied on request.



Meonine supplied in 0.5 gram tablets, bottles of 100 and 1000. Crystalline Meonine—for preparing injection solutions—supplied in 50 gram bottles.

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Analysis of Blue Shield Payments

Appendectomies, tonsillectomies, and obstetrical and gynecological procedures account for approximately 60 cents out of every dollar paid to physicians by Blue Shield plans for surgical services, according to a recent announcement from the office of Associated Medical Care Plans.

Beyond these major cost items, according to preliminary studies, approximately 70 surgical procedures will absorb 85 per cent of all payments to physicians for benefits provided under the average surgical type of subscriber contract.

Payments for radiology and anesthesiology appear to be on the increase, current explanations for this trend pointing toward the increasing number of physician specialists in these two fields of practice. Also, the incidence of these particular services seems to increase in direct ratio to the aging of a contract, or the plan itself, during which time both the subscriber and the physician become more aware of the benefits provided in the subscriber's contract and submit claims accordingly.

Female subscribers cost Blue Shield approximately three times as much for surgical benefits as do male subscribers, while female dependents are only slightly less costly by comparison. Obstetrical and gynecological costs account for most of this difference.

Male dependents, chiefly minors, are more costly than female dependents of the same age, because of services such as herniotomies, circumcisions, fractures and dislocations. Boys seem to suffer exactly twice the number of broken bones as do girls.

Standard reporting forms are being completed by the Blue Shield national office, with the expectation that complete actuarial data for 1948 will be reported and tabulated by the middle of 1949.

Plastic Orbital Implant

A new plastic orbital implant which can be sutured to eye muscles so that it moves like a human eye has been announced by the American Optical Company. It was developed by Dr. William Stone, Jr., of the Massachusetts Eye and Ear Infirmary, and Mr. Fritz Jardon of the optical company.

The implant is spherical in shape and partly covered with a double thickness tantalum mesh for suturing in position. In the top is a rectangular hole for reception of the implant peg. It can be used for either primary or secondary operations where the socket is reopened after a previous operation. Clear plastic immediate shapes or conformers are supplied for use immediately after operations.

Doctors wishing to use the new implant may secure a complete operative kit which includes a Stone-Jardon implant, a post-operative shape, a set of tantalum sutures and a complete description with drawings of Dr. Stone's operative technique.

Report on German Children

The first post-war report by an international agency on the condition of German children was issued in July by the United Nations International Children's Emergency Fund, bringing to attention a number of physical, social and psychological problems. The report is based upon a survey in the French, British and American zones of occupation and does not include a survey of the Soviet Occupation Zone since no request was received for that study.

The executive board of the Fund has allocated $1,000,000 for a four-months' initial program for children in all four zones of Germany. The money is not to be used for mass feeding programs but will be marked for special health and welfare projects. Occupation forces of the American and British zones have been carrying on a school feeding program for an extended period and have assisted materially in that way, although deficits of course still exist.

The present official ration per person in those zones is 1550 calories, and delivery has been running a little under 10 per cent less than the official goal. However, it is estimated that the average German obtains between 200 and 500 additional calories from other sources, and school children receive about 300 supplementary calories five days a week through the school feeding program.

A far more serious problem than scarcity of food, according to the report, is the breakdown of morale, particularly in the large bombed-out cities. Factors responsible are over-crowded living conditions and the resultant disruption of family life, lack of proper clothing, inadequately heated buildings, and shortages of all types of materials.

Orientation Course in Allergy

Northwestern University Medical School, under the sponsorship of the American Academy of Allergy, will present an orientation course in clinical allergy at the school in Chicago from October 25 to October 29, inclusive. The registration fee of $45 will be waived for a limited number of residents and internes. Twenty-seven specialists from all parts of the United States will make up the faculty.

Complete information on the course may be obtained from Dr. Samuel M. Feinberg, Director, Allergy Orietation Course, Northwestern University Medical School, 303 East Chicago Avenue, Chicago.

ANNOUNCEMENTS

September 7-11—26th Annual Scientific and Clinical Session, American Congress of Physical Medicine, Hotel Statler, Washington, D. C.

September 20-23—15th Anniversary Convention, American Hospital Association, Hotel Traymore, Atlantic City, New Jersey.

Sept. 20-23—Postgraduate Course in Metabolic Disorders, Dallas Southern Clinical Society, 433 Medical Arts Building, Dallas 1, Texas.

Sept. 23-25—16th Annual Meeting, Central Association of Obstetricians and Gynecologists, Shirley-Savoy Hotel, Denver, Colorado. For information write Dr. John I. Brewer, secretary, 24 West Ohio Street, Chicago 10, Illinois.

September 29-October 1—13th Annual Meeting, Mississippi Valley Medical Society, Springfield, Illinois.

October 4-7—26th Annual Fall Clinical Conference, Kansas City Southwest Clinical Society, Kansas City, Missouri.

Oct. 18-22—34th Clinical Congress, American College of Surgeons, Biltmore Hotel, Los Angeles, California.

Nov. 30-Dec. 3—Midwinter Meeting, A.M.A. House of Delegates St. Louis, Missouri.

March 28-April 1—30th Annual Session, American College of Physicians, New York, New York.

MAY 9-12—90th ANNUAL SESSION, KANSAS MEDICAL SOCIETY, TOPEKA, KANSAS.

June 6-10—Annual Meeting American Medical Association, Atlantic City, New Jersey.



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Henry's habit of "nibbling". . . the quantities of pop and red-hots, tamales and ale and fish and chips that he wraps himself 'round in a year's time . . . deadens his appetite for more balanced fare. And just as surely as if he were a diet faddist, a hurrier, a worrier, Henry is rapidly approaching that half-sick, half-well feeling so indicative of subclinical vitamin deficiency. You know these cases call for dietary reform. But you know, too, how hard it is for people to stay on a proper diet. That's why many physicians rely on vitamin supplementation. When this is indicated in your own practice, remember the name, Abbott—a leader in vitamin research and development. There's an Abbott vitamin product to answer your patients' needs for single or multiple vitamins, for supplementary or therapeutic levels of dosage, for oral or parenteral administration. They are rigidly standardized for the contained vitamins. Available at prescription pharmacies everywhere. ABBOTT LABORATORIES, North Chicago, Illinois.

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ABSTRACTS

Dicumarol Prophylaxis in Surgery

Dicumarol Prophylaxis Against Venous Thrombosis in Women Undergoing Surgery. George V. S. Smith and William J. Mulligan, Surg., Gyn. and Obs., 86:461-464 (April) 1948.

The authors state: "The (prophylactic) use of dicumarol in 2,353 selected patients out of a total of 9,051 operated upon during a four-year period appears to have contributed to a considerable reduction of the incidence of postoperative thrombotic complications without in itself causing a distressing amount of trouble."

Various dosages were employed and the most satisfactory plan seemed to be the administration of 100 milligrams of dicumarol (for the average adult) 30 to 48 hours after operation and again five days later. This was repeated after another five days if the patient was still in bed. Prothrombin time was determined prior to the second and third doses, but was not performed daily, as in some clinics.

This work would appear to be a distinct contribution to the research being done in the field of venous thrombosis. It is a type of study for which this reviewer has been watching for some time. It is hoped that further reports from other centers will be forthcoming.—*T.P.B.*

* * *

Liver Function in Surgery

Liver Function in Surgery. Karl A. Meyer, Hans Popper and Frederick Steigmann, Jnl. Int. Coll. Surg., X:513-520 (Sept.-Oct.), 1947.

Relationships of liver function tests to problems in diagnosis and treatment of hepatic disease are reviewed. The authors stress that "the presence of liver cell damage, as indicated by function tests, does not contradict the diagnosis of a surgical jaundice. Moreover, if other criteria indicate the presence of an extrahepatic biliary obstruction, the demonstration of liver function impairment increases the urgency for surgical intervention."—*T.P.B.*

* * *

Radioactive Elements in Malignancy

The Therapeutic Use of Radioactive Elements in Malignancy. P. F. Hahn and C. W. Sheppard, Anns. Int. Med., 28:3, 598-606 (March), 1948.

These authors list the theoretical future as well as the present practical use of radioactive isotopes.

The criteria for therapeutic usefulness of radioactive isotopes appear to be:

1. The "half-life" must not be too long. Ten days are arbitrarily set as the desirable upper limit.
2. Half-life must be sufficiently long for the isotope to perform its work, two days probably minimum, unless one is very near the source of material.
3. Biological behavior, especially localization in tissue, of the material should be well established.
4. The chemistry of the element should be well understood. Some rare elements may later have practical value.
5. Radiation spectrum of the isotope should be established. If a hard gamma ray is emitted, proper shielding in shipment and the laboratory becomes more difficult.
6. The material should be deposited selectively in the tissue to be treated.
7. If the isotope is toxic, specific activity becomes important in keeping dosage under toxic limits.
8. The cost of producing and shipping is of great importance.

Out of some 450 known radioactive isotopes, only about six deserve critical investigation and appraisal at this time.

Radioactive sodium, Na^{24}, may be a favorable substitute for "spray radiation," generalized x-radiation over the whole body. It is uniformly distributed over the body in extracellular water. It would extend radiation period for many hours. It is difficult to ship and handle because of hard gamma ray emitted.

P^{32} has been widely used, probably because of availability. Greatest success has occurred in polycythemia vera and possibly myelogenous leukemia. These authors feel that phlebotomy is preferable in polycythemia vera. They also feel that "half-life" of P^{32} is too long.

Ues of manganese (Mn^{52}) feasible only if one or several treatments would be necessary. Repeated treatments would include too much of the long-lived component, Mn^{54}.

Copper, Cu^{64} may later offer distinct possibilities. Its short half-life, only 12.8 hours, precludes widespread successful use now.

Arsenic, As^{74}, is of debatable future value. More study is indicated before condemning it.

Yttrium^{90} has a hard pure beta particle spectrum. Future study may indicate that it is a useful substitute for P^{32}, and it may be of value in treatment of diseases of bone and marrow.

Silver, Ag^{111}, has not yet been tried. It tends to attach itself to protein and remain in situ, and may be of value.

I^{130} and I^{131} have been extensively studied in thyroid disease. It represents a superb biological selection and an aim to be set for the use of most isotopes.

Gold, Au^{198} has only recently been tried. It almost ideally fulfills the criteria for a desirable radioactive isotope. It may be established as being of great value.

These authors suggest a few technics in therapeutic use of the isotopes:

1. For general body radiation.
2. Utilization of the affinity of a tissue for a given isotope. Example: iodine in thyroid disease.
3. Utilization of chemical affinity of tissue for an element, and substitution of another element which behaves simliarly physiologically, but has more suitable physical properties. Example: substitute strontium or yttrium for calcium.
4. Utilization of semi-specific uptake of elements by tissues when some degree of generalized radiation is desirable or not strongly contra-indicated.

Example: P^{32} in myelogenous leukemia and polycythemia vera.

5. Utilization of specific functions of certain tissues in their physicochemical behavior toward administered materials.

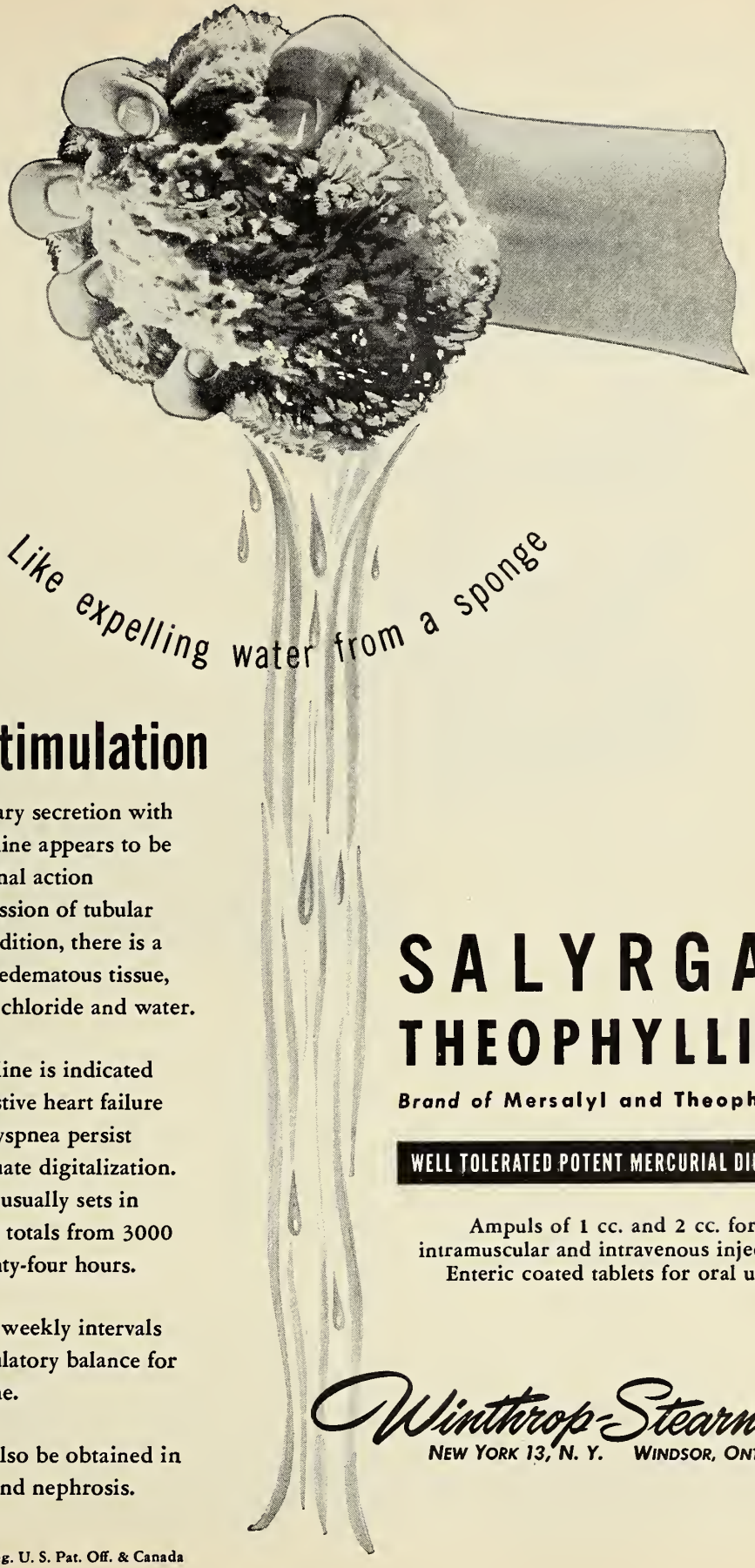
Examples: (1) Phagocytosis of intravenously administered particulate material in concentrating radiation of the reticulo-endothelial system.

(2) Intraperitoneal or intrathoracic injection of colloidal material for removal by regional glands in such diseases as Hodgkin's.

6. Topical application in therapy of superficial lesions.
7. Treatment of tumors of hollow viscera by instillation of radioactive material to obtain radiation by proximity.

Example: Instillation of suspension of radioactive material in non-absorbable form for bladder tumors, e.g. colloidal Au^{198}.

8. Selective therapy of specific organs or tissues making use of specific action of certain drugs to manipulate the progress of the isotopic material.



Urinary Stimulation

Stimulation of urinary secretion with Salyrgan-Theophylline appears to be due chiefly to its renal action consisting of depression of tubular reabsorption. In addition, there is a direct influence on edematous tissue, mobilizing sodium chloride and water.

Salyrgan-Theophylline is indicated primarily in congestive heart failure when edema and dyspnea persist after rest and adequate digitalization. Gratifying diuresis usually sets in promptly and often totals from 3000 to 4000 cc. in twenty-four hours.

Injections at about weekly intervals help to insure circulatory balance for long periods of time.

Good results may also be obtained in chronic nephritis and nephrosis.

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Brand of Mersalyl and Theophylline

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9. Therapy of pulmonary carcinoma by direct inhalation of radioactive material.

10. Direct radiation of discrete masses of tumor tissue by infiltration of the tumor with an inert insoluble isotopic material.

11. Physical manipulation to localize distribution of radioactive material.—*E.J.R.*

* * *

Bulbar Poliomyelitis

Tracheotomy in Bulbar Poliomyelitis. Robert E. Priest, Lawrence R. Boies and Neill F. Goltz, Ann. Oto., Rhin. and Laryng., 56-250-263 (June), 1947.

This is a report of the authors' experience with tracheotomy in the poliomyelitis epidemic in Minneapolis, Minn., in 1946. Of 1,830 instances of poliomyelitis, approximately 400 were diagnosed as bulbar type. In this type of poliomyelitis, 29 survived of 75 on whom tracheotomies were performed. On the adult neurological service, at the University of Minnesota Hospital, tracheotomies were done on all patients with early bulbar symptoms whose disease was progressing rapidly, or with involvement of respiratory or the circulatory centers, or severe toxicity or mental changes. At the General Hospital and the University Hospital pediatric service, tracheotomy was performed on those individuals who exhibited the following symptoms: respiratory distress as evidenced by recurrent cyanosis, coarse rales in the chest and laryngeal stridor, excitement and unmanageability causing the patient to resist pharyngeal aspiration, stupor of a sufficient degree to make the patient oblivious of accumulation of secretions in his air way, inability to cough effectively, pharyngeal pooling of mucus, vocal cord paralysis or intralaryngeal hypesthesia, demonstrable by laryngoscopy.

Tracheotomy makes it possible to put these patients in the respirator and suction through the tracheotomy tube prevents aspiration of the pooled secretions into the bronchi by the action of the respirator.

The authors conclude that tracheotomy has an important place in the treatment of bulbar poliomyelitis.—*D.R.D.*

* * *

Rapid Rat Test for Pregnancy

The Rapid Rat Test for Pregnancy. G. M. Riley, Marjorie H. Smith and Pearl Brown, Jnl. Clin. Endoc., 8:3, 233-243 (March), 1948.

For this test, immature female albino rats of the Wistar strain, weighing 35 to 75 gm., were used. Two c.c. of urine from the first morning specimen were injected intraperitoneally into each of two animals. Hyeremic response, indicative of pregnancy, was demonstrated by reddened appearance of the ovary. Reading was facilitated by comparing the color with that of the tube, which should be definitely lighter in a positive test.

Agreement with the Aschheim-Zondek test was first studied. In a series of 182 positive A.-Z. tests, the test agreed in 97.3 per cent. In 104 negative A.-Z. tests, the rat test agreed in 97.1 per cent.

In 128 cases of proved positive pregnancy, the rapid rat test and the Aschheim-Zondek test each gave an accuracy percentage of 98.4 per cent. In 66 cases which did not prove to be pregnant, the A.-Z. test was 100 per cent accurate and the rapid rat test was 97 per cent accurate.

A high degree of accuracy was obained if the test animals were studied four to six hours after injection. This time interval is recommended, since it still allows the report to be given on the day of the test.

The Aschheim-Zondek test is superior in cases of disturbed pregnancy, such as ruptured ectopic or threatened, incomplete, or missed abortion. A low concentration of chorionic gonadotropin, which may be present in these conditions, can be detected by the A.-Z. test.

Another disadvantage to the rapid rat or ovarian hyperemia test is the fact that it may occasionally be positive at the mid-cycle.

It is, however, recommended because of its rapidity, simplicity, and high degree of accuracy.—*E.J.R.*

American College of Surgeons to Meet

The 34th clinical congress of the American College of Surgeons will be held in Los Angeles from October 18 to 22, 1948. Headquarters will be at the Biltmore Hotel. Six hundred initiates will be received into fellowship. The College was organized in 1913 to elevate the standards of surgery, and there are now 15,000 fellows in North, Central and South America.

Lonalac for Restricted Diets

Lonalac, a product of Mead Johnson and Company, is a valuable nourishment for persons on diets of restricted sodium content. Nutritionally similar to whole milk powder but virtually free of sodium, it aids in the maintenance of protein nutrition when milk, meat, eggs and cheese must be restricted. Congestive heart failure, hypertension and toxemia of pregnancy have been treated with low sodium diets.

Instrument Measures Capillary Fragility

Through the use of a new instrument developed by the Rexall Drug Company, the petechiometer, a physician may now measure capillary fragility without difficulty, according to a release from the manufacturer. The device, operating on the principle of negative pressure applied over the biceps, permits an accurate petechial count through a magnifying lens incorporated in the head of the instrument. This determination requires two minutes, in contrast to 20 minutes required by positive methods.

Tumor Seminar in Texas

A tumor seminar on diseases of the reticulo-endothelial system will be presented by the San Antonio Society of Pathologists at Brooke General Hospital, San Antonio, on October 23. Twenty-five cases will be discussed by Dr. Shields Warren. There is no registration fee but those who plan to attend are asked to apply now so that the committee may send them a box of slides and the histories of the cases. Correspondence should be addressed to Dr. B. F. Stout, Medical Arts Building, San Antonio, Texas.

New Antihistaminic Drug

The Schering Corporation has announced the discovery of Trimeton as a new approach to the chemistry of antihistamine substances for relief of allergic symptoms and hay fever. Although basically different in chemical structure than all other recently discovered antihistaminics, Trimeton has been found effective in hay fever, vasomotor rhinitis, urticaria and other allergic states. Schering reports that the drug is low in toxicity, high in potency and relatively free from those properties which from clinical experience with other drugs would be expected to exert undesirable side effects in human patients.

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Clinical Laboratory Methods and Diagnosis. Fourth edition. By R. H. B. Gradwohl, M.D. Published by C. V. Mosby Company, St. Louis. 3300 pages, 1100 illustrations, 56 color plates, three volumes. Price $40.

Volume I, 1295 pages, is a most complete work on blood, urine, gastric analysis, feces, with an enormous number of special tests, such as semen examination, vitamin testing, various pregnancy tests, spinal fluid examination and almost every known special test.

Volume II, 987 pages, covers in a thorough manner the field of bacteriology, toxicological examinations, postmortems, electrocardiography, tissue sectioning, giving in detail the various methods of making these various examinations, with many special stains, etc.

Volume III, 819 pages, is the most complete book published in the field of parasitology and tropical medicine.

These three volumes cover almost every known laboratory procedure as well as pathological procedures, and can be recommended to the pathologist, the technician and the chemist.—*J.L.L.*

* * *

Overcoming Stammering. By Charles Pellman. Published by the Beechhurst Press, New York, 1947. Price $3.00. 160 pages.

This book on stammering has the very ambitious aim of giving practical advice on how to correct stammering, insight into the mechanism of stammering, and a critical review of theories and correcting methods. The author is very self-confident and does not credit any other method than his own. "Psychoanalysis as a cure of stammering has proved a complete failure." Breathing methods, rhythmic speaking, drawl, phonetics, all are equally bad and are described harshly, but without any thorough or scientific evaluating of theories or methods. Any of the mentioned methods the referent has experienced so far may show cured cases of stammering and also many failures. As Otto Fenichel describes in The Psychoanalytic Theory of Neurosis, Chapter XV, there are stammerers with a rather simple dynamic structure nearer to the hysteric neurosis and stammerers with severe narcissistic neurosis, with severe psychosomatic fixation. When one has worked with stammerers, it is soon experienced that this is the case. Accordingly, it is natural that it is easy both to find failures and cures with many methods.

The book is without scientific value. From a practical point of view, however, one may find some common sense advice to parents and some general insight. The author agrees that the emotional status of a stammerer is as important as the muscular training correction. He is, however, unwilling to accept any deeper dynamic background for the emotional stress. He denies that the stammerer has any personality traits characteristic for him.

The last chapter in the book, "A Glimpse into a Childhood of Stammering," gives a strong impression not only of all the unhappiness this speech disorder represents for children, but also just as lively a picture of character traits seen frequently in cases of stammering which point to the deeper conflicts which the author refuses to see. The referent agrees in the social importance and the necessity of broader mental hygiene approach to the problem. If one forgets the disturbing ambition and self-conscience of the author, one can admit that he reveals a warm interest in the problem.—*N. W.*

* * *

Practical Bacteriology, Hematology and Parasitology. Tenth edition. By E. R. Stitt, M.D., Paul W. Clough, M.D., and Sara E. Branham, M.D. Published by The Blakiston Company, Philadelphia. 991 pages, 765 illustrations. Price $10.

In addition to the material covered in previous editions, this present edition covers well the following newer material, Rickettsial diseases, liver functions, antibiotics and vitamins. The reader will find a good coverage of mycology, protozoa, the helminths and medical entomology. The work on routine laboratory testing is well covered in hematology, urinalysis, bacteriology and biochemistry.

This is a greatly enlarged edition, is well arranged, and is a most excellent book for both the laboratory worker and the general practitioner.—*J.L.L.*

National Heart Institute Established

Establishment of the National Heart Institute as one of the National Institutes of Health in the Public Health Service was announced last month by Oscar R. Ewing, Federal Security Administrator. At the same time the appointment of Dr. Cassius J. Van Slyke as director was announced.

The National Heart Institute was created by Congress and was approved by President Truman on June 16, 1948. The law authorizes the development of a broad attack upon cardiovascular diseases, and the program will include the conduct of research, financial aid to outside institutions for research and training of professional personnel, fellowships for individual scientists and grants-in-aid and technical assistance to the states for heart disease control services.

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Drug Aids Asthmatics in Surgery

Intravenous injection of small amounts of the newly developed drug Isuprel provides control of asthma under anesthetics, thus removing one of the surgical hazards for patients suffering from this condition, according to a report issued recently by the University of Minnesota Hospital and the Minnesota Medical Foundation.

The doctors reporting on the subject stated that the injection provided "complete relief throughout the surgical and post-operative periods." Initial dosages varied from 0.16 to 0.0 milligrams. Largest total dose was 0.068 milligrams. Rise in pulse rate and blood pressure was reported to be minimal in all cases.

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Army Resident Training Program

Applications are now being received in the office of the surgeon general of the Army for the military resident training program being conducted in Army general hospitals. Under this program any physician who qualifies for and accepts a commission in the regular Army Medical Corps will be given the opportunity of competing for an approved residency in the field of his choice.

Senior residencies are available in thoracic surgery, orthopedics, pulmonary diseases, pathology, ophthalmology and physical medicine. A limited number of residencies will be available in orthopedics, pathology and physical medicine, and assistant residencies are offered in obstetrics, urology, thoracic surgery, dermatology, and pediatrics.

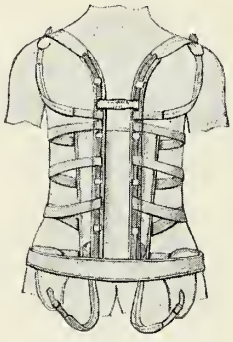
Census of Psychiatric Patients

A total of 529,247 persons, or 382.4 out of every 100,000 in the civilian population of the United States, were in hospitals for the prolonged care of psychiatric patients at the end of 1946, according to figures recently released by the Mental Hygiene Division of the Public Health Service. The number of resident patients increased during the year by 10,575, representing about two per cent of the 518,672 present at the beginning of the year. The number of first admissions to prolonged care hospitals during 1946 was 153,025, or 110.6 per 100,000 of the estimated civilian population.

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PREJUDICIAL PRACTICES IN THE MANAGEMENT OF ECLAMPSIA*

Willis E. Brown, M.D.**
Iowa City, Iowa

Eclampsia is only the final clinical manifestation of a toxemic pregnancy. Its appearance suggests indifference or inattention on the part of either the patient or her physician to obvious "storm warnings." Although the cause of eclampsia is unknown, clinical prophylaxis is highly effective. Deaths from eclampsia seldom occur in patients receiving good prenatal care; the incidence of maternal deaths from this cause is a good index of the general level of prenatal care obtained by the average patient in a given community. Usually society, the patient, and the doctor, all three, share some responsibility for an eclamptic death.

In order to manage eclampsia properly, it is necessary to understand the clinical picture of this disease which culminates in the convulsive disaster. It is admitted that no two patients follow precisely the same pattern, yet there are certain features common to all which can be recognized and evaluated during the prenatal visits.

Eclampsia was formerly thought to be a suddenly appearing disease in a healthy gravida and was so defined in the older texts and dictionaries; in fact such is the derivation of the word eclampsia itself. It is now known that toxemia and its sequela, eclampsia, almost always announce themselves by certain obvious alterations in the physiology of pregnancy which can be recognized clinically. If common clinical skills are brought to bear on these derivations at their onset, clinical eclampsia will practically disappear, and eclampsia deaths will become a rarity.

What are these clinically recognizable alterations in the physiology of pregnancy that are so glibly stated to give warning of eclampsia? Historically, the physician has sought mystical explanations for phenomena which he could not explain and in so doing has often stumbled over the obvious in his search for the occult. The almost magical demonstration of albumin in the urine of eclamptic patients has blinded us to the simple use of scales and sphygmomanometer. Long before albumin can be found in the urine, there usually has been an accumulation of salt and water which can be easily detected by frequent weighing of the patient. Likewise, fluctuation in, and elevation of, blood pressure in most instances precedes by several days or weeks the appearance of proteinuria and convulsions. These two—weight and blood pressure derivations —invariably warn the physician of approaching danger.

From the standpoint of this syndrome, prenatal care is designed to prevent eclampsia by the early detection and prompt treatment of toxemia of pregnancy. The routine use of diets high in protein and low in salt is a simple but effective procedure which largely eliminates the development of severe toxemia and eclampsia. To determine the status of the patient it is necessary for the physician to see her frequently. The relegation of prenatal checkups to an office nurse cannot be too heartily condemned The regular recording of weight and blood pressure measurements, and the critical interpretation of changes in these values by the physician is essential to the early detection of toxemia of pregnancy and the prevention of eclampsia.

Arbitrary maximal figures for weight gain and blood pressure levels are misleading. Any patient who gains more than a pound a week or five pounds a month, or whose diastolic blood pressure increases by more than 20 mm. of mercury, regardless of her initial levels, should be viewed with suspicion, watched more closely, and seen more frequently. The

*Presented at the 89th annual session, Kansas Medical Society, Wichita, Kansas, May 10-13, 1948.

**Department of Obstetrics and Gynecology, University of Iowa College of Medicine.

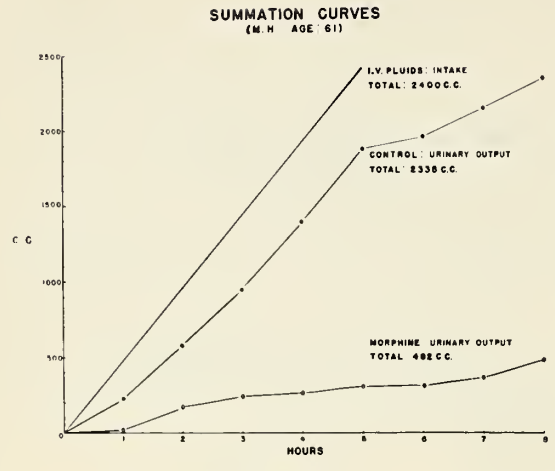


Figure I

Chart of urine excretion under morphine. Patient given infusion of glucose at a constant rate of 400 cc. per hour. Urine collected hourly by indwelling catheter. Control day indicated by solid dots. At onset of experiment on test day patient was given morphine grains ¼ and urinary volumes recorded on the line with open circles.

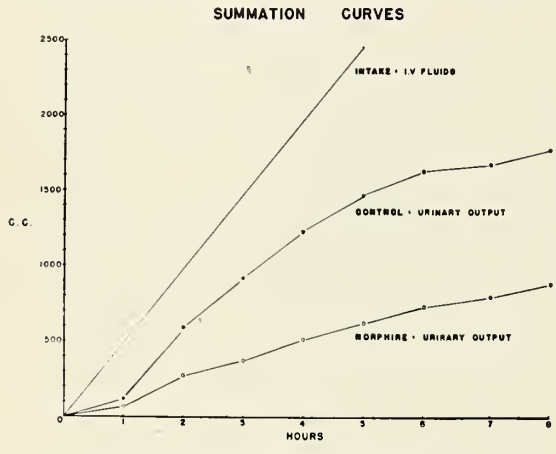


Figure II

Similar to Figure I. Represents the average of nine pregnant women. The volumes for control and test days were averaged.

most common error in the clinical management of severe toxemia and eclampsia is to disregard such premonitory signs and permit the patient to progress to a state of emergency before active therapy is instituted.

At times even the best clinical care fails to alter the progress of toxemia of pregnancy. Under such circumstances, the pregnancy should be terminated by the induction of labor. Procrastination in this regard in the face of obvious warnings invites disaster. Simple rupture of the membranes at an optimum time will usually insure a favorable outcome.

A study of the past is frequently of help in anticipating the problems of the future. It seems suitable to review a recent case history* for lessons that may guide us.

A young primigravida—expected date of confinement February 10, first prenatal visit on September 12, with the following findings: height 5′ 3″, weight 130 pounds, normal physical examination, blood pressure 105/65, and pelvic measurements normal; prognosis, a normal pregnancy and labor. Prenatal visits the first of October and November revealed no change in blood pressure and the weight was 133 and 138 pounds respectively. On December 10, the patient came in for checkup saying she had suffered an upper respiratory infection; weight 145 pounds and blood pressure 120/85. Urine was negative for albumin. On January 15, the patient called stating she had a headache and she was seen in the office. Her weight was 149 pounds and blood pressure was 145/100. A diagnosis of toxemia was made and the patient was hospitalized for medical management. Under sedation, high protein low salt diet and bed rest the patient's condition improved. She lost five pounds of weight and the blood pressure became 140/90. The child was of good size and with an engaged vertex. The patient was discharged from the hospital on January 25 improved. On January 27, the patient had moderately severe pain in the abdomen and began to experience vaginal bleeding. By the time she reached the hospital she was in mild shock and bleeding moderately. Fetal heart tones and movements were absent. A diagnosis of abruptio placenta was made and the condition treated by classical cesarean section. The uterus was not packed. Following operation the patient bled severely and in four hours was returned to the operating room, and under the diagnosis of a couvelaire uterus a hysterectomy was done. Emergency (not cross-matched) transfusion was necessary. The patient became anuric and died 30 hours later of shock and anuria.

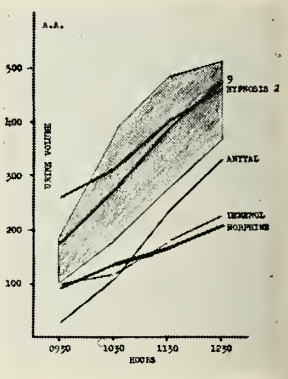


Figure III

Fluids given by mouth at 7:00 a.m. as a liquid breakfast. Urine collected hourly. Bladder emptied at 8:30 a.m. and 12:30 p.m. by catheter.

Average of nine control days is the line through the range indicated by the shaded area. On test days the sedation was given at 8:30 a.m.; morphine grains ¼ given intravenously, demerol mgm. 100 given intravenously, sodium amytal grains three, given intravenously and grains three, given intramuscularly. It is apparent that the urine output on the sedative days was not only below the average day but below the lowest control day recorded.

In order to assay the effect of sleep, hypnosis was employed. The urine volume is similar to the control average.

It should be easy to conclude that this patient died an accidental death due either to a transfusion reaction, or to a couvelaire uterus as a complication of the premature separation of the placenta. I should like to submit that at least five primary errors were made before the

*I am indebted to W.F.M. for permission to use this protocol.

abruptio placenta developed.

1. Disregard of weight gain of eight pounds between November and December.

2. Indifference to a rise of 20 mm. Hg. in diastolic blood pressure on December 10.

3. Failure to give advice for medical management at home.

4. Discharging an undelivered toxemic patient from the hospital.

5. Failure to induce labor at the optimum time about January 25.

These five errors, each apparently minor in itself, set the stage for the recurrence of the toxemia and the premature separation of the placenta. Disregard of premonitory signs and procrastination in the induction of labor forced the attending physician to make a compromised choice on January 27. The employment of cesarean section in the presence of a dead baby, the failure to pack the uterus, and the failure to cross match the patient before transfusion, while reprehensible in themselves, become less significant in the clinical outcome of this pregnancy than the disregard of the "storm warnings" several weeks previously. Surely, the outcome in this case could not have been worse; the induction of labor by rupture of the membranes on January 25, might well have led to a favorable issue.

When eclampsia supervenes, regardless of its cause, an obstetric emergency exists. Under most circumstances such patients should be hospitalized. At times, especially in summer, the transfer of such patients moderately long distances to a hospital should be deferred since it may precipitate further convulsive seizures to the detriment of the patient. There are three cardinal principles in the clinical management of eclamptic patients and they are to be applied in the following order. First, the prompt control of convulsion by deep sedation; second, the establishment of diuresis and the lowering of the blood pressure; and third the interval emptying of the uterus by the most conservative means available. Each of these principles will be considered in more detail.

Deep sedation is essential. The drug depression should be carried to the point of respiratory depression and/or muscular relaxation. In the past morphine, amytal, paraldehyde, and chloral have been used more or less interchangeably, each having its staunch supporters.

Recent studies at the University of Iowa indicate that morphine and possibly amytal have marked antidiuretic effects. (See Figures I through V) From these studies it would appear that the oliguria of eclampsia may be converted to anuria by morphine. Paraldehyde and avertin seem to lack this antidiuretic effect, but have not been so widely used in the treatment of eclampsia.

When paraldehyde is used, 30-40 cc. must be given rectally in oil and repeated as needed. Avertin can be given in doses of 70 to 80 mgm./kg. and repeated as needed. If morphine is used (and it often is the most readily available), two or three quarter grain doses should be given at 30 minute intervals. Failure to control the convulsions of eclampsia by prompt and deep sedation encourages radical inter-

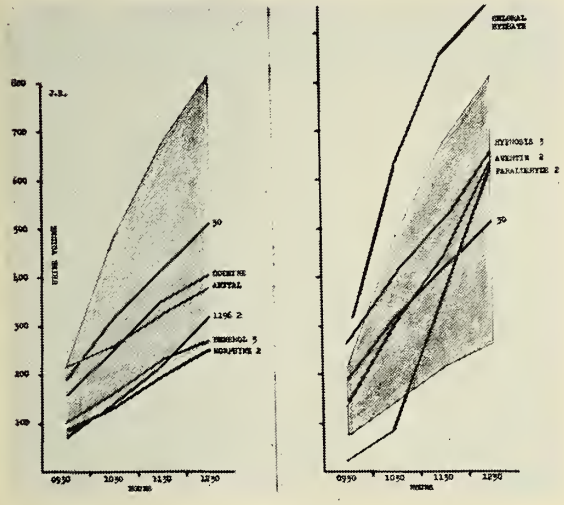


Figure IV

This patient was studied in the manner described for Figure III. She had a total of 48 studies, 30 of which were control. The average and range of urine output is indicated by the solid line and shaded area.

The dosage of the drugs is as follows: morphine grains ¼; demerol mgm. 100; paraldehyde 40 cc.; chloral hydrate grains 30; codeine grains 2; amytal grains 7½; 1196 mgm. 15; avertin 75 mgm./Kg.

Note that chloral hydrate, avertin, and paraldehyde increased urine output while all other drugs depressed it.

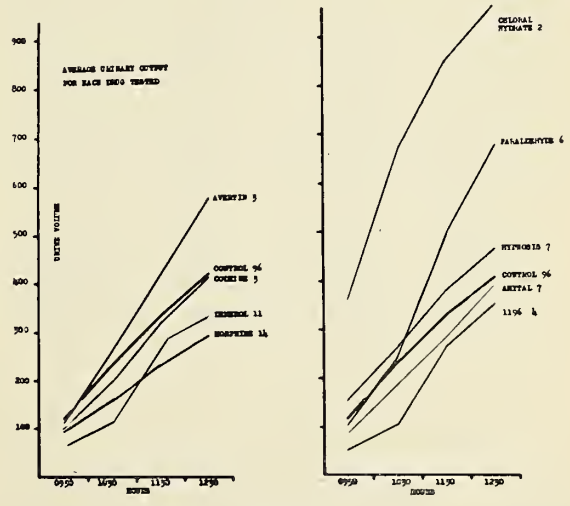


Figure V

Schedule similar to Figure III. This is an average of all figures for control and drugs obtained from 12 patients.

vention. Adequate sedation permits preparing the patient for the emptying of the uterus.

Only after the convulsions have been controlled are other procedures initiated. Oxygen may be given in cases of cyanosis. Digitalis is recommended by many in the presence of tachycardia and pulmonary edema. A catheter is placed in the bladder and a slow intravenous infusion of 5 per cent or 10 per cent dextrose is started. Hourly observations of the depth of sedation (restlessness), urinary output, blood pressure, and intake are made, and the further recommendations based on these data.

The current fads in the use of fluids tend to one extreme or the other, both of which are wrong. Strict dehydration or drowning of patients are both unjustified. The enthusiasm for hypertonic fluids has neither the support of experience nor a scientific foundation. Studies on normal pregnant women demonstrate failure of crystalloids to augment the output of urine. (See Figures VI through IX) Patients lose 1200 to 1500 cc. per 24 hours through the skin and lungs; therefore, the slow administration of 50 to 75 cc. per hour of an isotonic solution of dextrose serves to maintain fluid balance during the interval of deep sedation. At times the addition of diuretics to the infusion (ammonium chloride and aminophylline) may be of some help.

Anuria has assumed unwarranted clinical importance. Obviously, a patient cannot go indefinitely without secreting urine and survive, yet it does not follow from this that 12, 24, or 36 hours of oliguria or anuria is harmful. Anuria following accidental bilateral ligation of the ureters produces no significant clinical changes for several days, and if relieved, the patient suffers no permanent effects. Dramatic attempts to overcome anuria frequently initiate unfavorable trends ending fatally. Patience

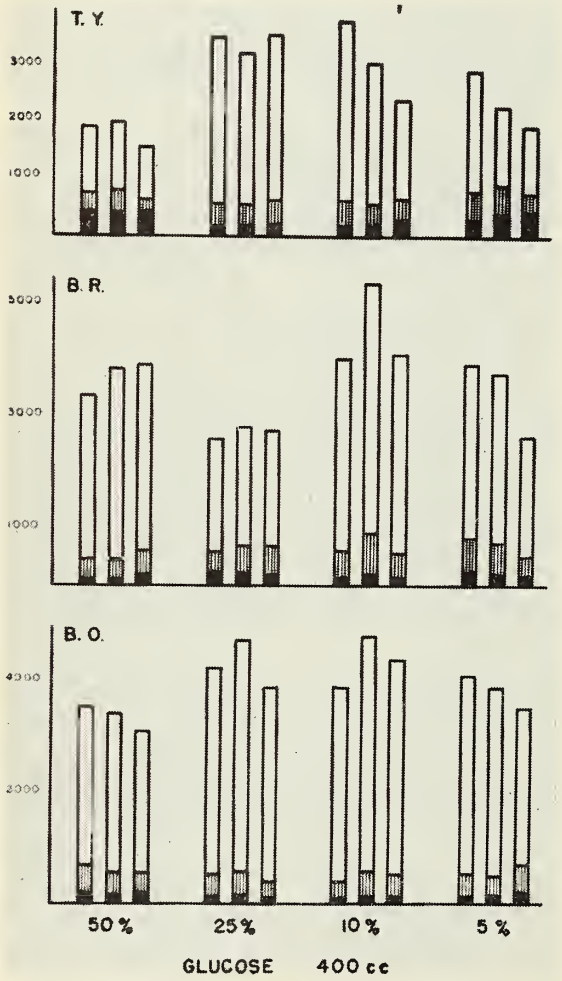


Figure VI

Four hundred cc. of dextrose given as an infusion over 6-8 hours and urine collected as 24 hour specimen. The open bars indicate total urine volume. The shaded bar is total sodium in grams per 24 hours, and the solid black is sodium concentration. The left-hand column is an average of three days before, the right-hand column is three days after, and the center column is the day of study.

Note that the urine and sodium values do not change as the concentration of dextrose in the infusion varies from 5 per cent to 50 per cent.

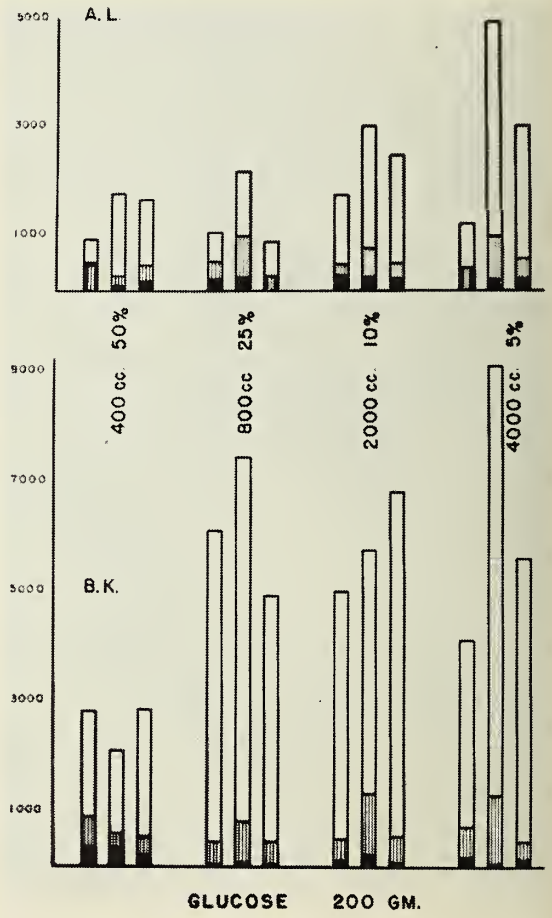


Figure VII

Two hundred grams of dextrose given as 5 per cent, 10 per cent, 25 per cent, and 50 per cent solutions according to schedule described for Figure VIII. Note the increasing urine and sodium values as the volume of infusion increases. Total amount of dextrose remained constant in these experiments.

and a "sit tight" philosophy are to be desired during this interval.

In time (a day or two) the patient improves clinically. The blood pressure tends to fall, the restlessness subsides, and diuresis is established. When these findings become apparent the sedation is lightened and preparations are made for terminating the pregnancy. Premature attempt to empty the uterus frequently exacerbate the convulsions. In selecting the method of induction of labor and the route of delivery it is necessary to consider the age and parity of the patient, the condition of the cervix (as determined by vaginal examination), the fetopelvic adaptation, and the fetal presentation. In all but the most unusual circumstances, simple rupture of the membranes and small doses of pitocin (not pituitrin) will initiate labor. Rarely, as in an elderly infertile primigravida with an unfavorable fetal presentation, abdominal delivery is to be preferred. The type of section employed depends on the skill of the surgeon and the facilities of the hospital rather than the specific obstetric considerations.

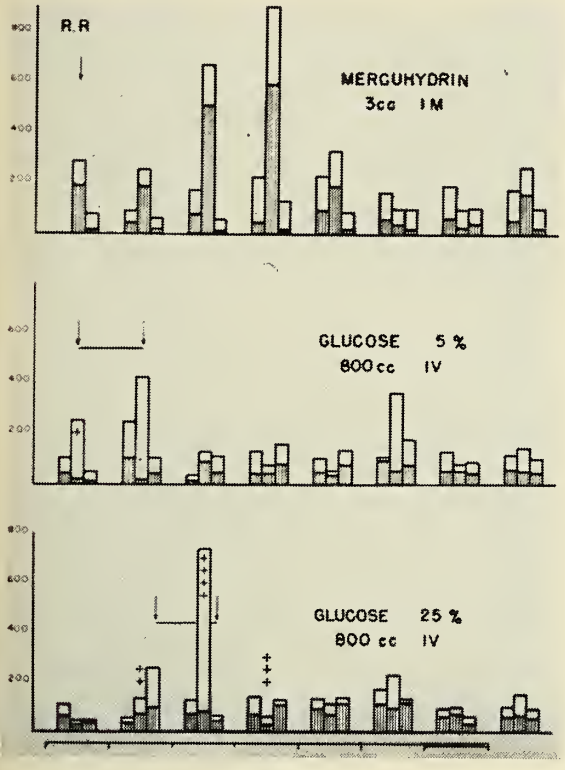


Figure VIII

In order to ascertain that a diuretic effect was not lost in the 24-hour studies, similar experiments were run using an indwelling catheter and collecting two-hour specimens. The left-hand bar is an average of three days' control for this two-hour period. The right-hand bar is a similar average for the control interval following the study day. The center bar is the study day. The markings indicate urine volume, total sodium, and sodium concentration as in Figure VII. Eight hundred cc. of fluid was given on the study day as 5 per cent and 25 per cent dextrose solutions.

There is slight augmentation of urine volume during the infusion but it is similar in the 5 per cent and 25 per cent studies. Note there is an antidiuretic phase in the 25 per cent experiment which appears in the succeeding two-hour specimen; the 24-hour values are not changed by either concentration.

SUMMARY

The keynote in the management of pregnancy toxemia and eclampsia is excellent prenatal care and the meticulous and prompt attention to deviations from normal.

Disregard of premonitory signs of pre-eclampsia and procrastination in the induction of labor permit the patient to drift dangerously towards eclampsia.

Once eclampsia has supervened, individualization is essential. Deep sedation is necessary to control convulsions. Morphine, avertin, and paraldehyde are suitable; the latter two avoiding an antidiuretic effect.

Both extremes of dehydration and drowning are to be avoided. Adequate fluid balance should be maintained by the infusion of 50-75 cc. of isotonic dextrose solution per hour.

The interval induction of labor by the rupture of membranes will usually permit favorable termination of the pregnancy.

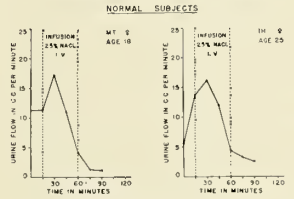


Figure IX

To obtain further observations on the effect of crystalloids on urine volume, saline was administered at the rate of 0.25 cc./Kg./minute as 2.5 per cent solution or 750 and 800 cc. respectively in the 45 minutes. Urine volumes were collected at 15-minute intervals. While the urine volume increased early during the infusion it did not increase by as much as the amount injected, so that some of the injected fluid was retained. Also during the third 15 minutes, the volume of urine decreased rapidly even though the infusion was continuing. This probably is an effect of the antidiuretic hormone from the pituitary.

Hospital Births at New High

A new high record was set in 1946 for the proportion of births in hospitals or institutions, according to information released recently by the National Office of Vital Statistics of the Public Health Service

Of the 3,288,672 live births recorded for 1946, 2,708,233 or 82.4 per cent occurred in hospitals, 402,759 or 12.2 per cent were attended by physicians outside hospitals, and 177,690, or 5.4 per cent were attended by midwives or other non-physicians. In 1935, the first year for which such figures were compiled, only 36.9 per cent of the confinements occurred in hospitals, 50.6 per cent were attended by physicians outside hospitals, and 12.5 per cent were attended by midwives and others.

In Kansas in 1946, 90.3 per cent were attended by physicians in hospitals, 9.6 per cent by physicians outside hospitals, and 0.1 per cent were not specified.

It has been the experience in practically all institutions for the mentally ill in this country, where mass radiography has been carried out, that these hospitals are virtually repositories of tuberculosis.—A. H. Russakoff, M.D., Am. Rev. Tuberc., Jan., 1947.

TREATMENT OF VARIOUS CARDIAC EMERGENCIES ARISING IN MYOCARDIAL INFARCTION*

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Myocardial infarction, which has been recognized as a clinical entity only since the turn of the century, may appear with any or all of a plethora of symptoms and signs, and can be of any severity, from the mild case caused by occlusion of a small end-branch of the coronary tree, to that of the severe, immediately fatal type accompanying occlusion of either of the main stem arteries serving the heart.

Following myocardial infarction, various cardiac emergencies often arise, and they require prompt and judicious treatment on the part of the clinician. Too often an incorrect diagnosis and the use of improper medication cause unhappy and often fatal results, when the administration of the indicated drug or the application of the proper procedure might well prove life saving.

There is no easy route to cardiac diagnosis, and accurate diagnosis is absolutely necessary in meeting these cardiac emergencies as they occur. If one will let the patient talk, when he is able, the history will usually give almost a complete diagnosis; however, many times the history may be misleading, and only an awareness of the possibility of myocardial infarction may suggest such a syndrome. The physical signs of cardiac disease can vary tremendously, and frequently may be inconclusive and occasionally misleading. The laboratory helps are frequently not specific in myocardial infarction, although they usually are helpful in many ways. The x-ray is usually not too helpful, although it usually gives confirmatory evidence of physical findings of pulmonary congestion or edema.

The electrocardiogram is probably the most helpful diagnostic aid available, but even it is not infallible. In the first place, a presumptive diagnosis of infarction must be made before the E.K.G. is indicated. Secondly, the changes on the graph are frequently not found until after a 12- to 24-hour period has elapsed, and usually the diagnosis is made long before that. In a few cases of infarction, no changes appear on the E.K.G., although these are relatively rare. However, all in all, the electrocardiogram is probably the most helpful of all the diagnostic aids in myocardial infarction.

There is one emergency always met in every case of myocardial infarction, and that is the initial attack with its shock, pain, dyspnea and coronary spasm, and all of the various symptoms and signs that accompany such a syndrome. In the initial attack, there are three conditions that must be alleviated as soon as possible: (1) systemic shock, (2) pain, and (3) reflex coronary spasm. Any treatment, in order to be worth while, must be directed at the relief of these three conditions, and the treatment usually will relieve all at the same time, rather than separately.

In order to relieve the pain, an opiate is almost always indicated, except in cases where there is a known sensitivity to the drug. I feel that it is best to combine the opiate with a vaso-dilator, usually aminophylline, rather than to resort to too heavy dosage of morphine. Quite often, using aminophylline, the pain is relieved by very small doses of opiate, while when used alone, quite large doses are required. My usual course of treatment is to give about 1/32 gr. of dilaudid, then 0.5 gm. of aminophylline intravenously. Only in ocasional cases is it necessary to use additional doses of the opiate. The advantage lies in the fact that there is not a secondary respiratory depression, and the aminophylline usually relieves the reflex coronary artery spasm that accompanies an acute myocardial infarction. Oxygen, of course, when available, is always indicated, and also is of value in combating the pain. Many of the milder cases respond so well to oxygen that no opiate is given, although aminophylline usually is given for the coronary spasm.

In addition to relieving the reflex coronary artery spasm, aminophylline is also of value in increasing the auxiliary circulation to the infarcted area through dilation of the coronary and Thebesian vessels, and therefore minimizes the actual localized ischemia.

Both the opiate and aminophylline should be repeated as often as needed with shock, pain, and dyspnea the chief criteria to be considered.

In myocardial infarction some 30 per cent of the cases exhibit, and from 10 to 15 per cent die from, various thrombotic or embolic phenomena other than the primary coronary thrombosis, so that the threat of such complications presents quite an important problem to the clinician. There are three types of clotting problems encountered:

1. Spread of the initial thrombus within the coronary artery so as to occlude additional branches of the coronary tree.

2. The development of mural thrombus on the initial lining of the heart underlying the infarcted

*Presented before the Nemaha County Medical Society, February 25, 1947, at Seneca, Kansas.

area. Blumer states that 50 per cent of the cases have this complication. Emboli arising from this source usually give systemic arterial emboli, although occasional pulmonary embolization is found.

3. Phlebothrombosis of the veins of the pelvis and legs. These are the source of pulmonary emboli that account for some 10 per cent of the deaths in coronary occlusion.

To me, the prophylaxis of these conditions seems to be of the utmost importance, and during the past year or so the use of various anti-coagulants, especially heparin and dicumarol, have been advocated. In my opinion, heparin is of aid in preventing the spread of the initial thrombus, while dicumarol is of more value in preventing the mural thrombi and the phlebothrombosis mentioned before.

We use heparin very little, as by the time we can administer it the danger of backward spread of the thrombus has minimized. Dicumarol, however, is finding increasing favor, and I would like to spend a little time discussing its use.

The indication for the usage of dicumarol is the finding of a prothrombin clotting time of 80 per cent of normal or more. Dicumarol acts to prevent the clotting by depressing the formation of prothrombin in the liver, and the consequent hypoprothrombinemia is measured best in "per cent of normal." If the initial prothrombin time is less than 80 per cent of normal, then dicumarol is probably not indicated, although this value should be rechecked on the third and fifth days after the infarction, as occasionally the prothrombin level rises.

Given a case of myocardial infarction, especially moderately severe or severe, where the patient is going to be confined to the bed for some time, and with a normal prothrombin time (over 80 per cent of normal), an initial dose of 200 mgm. of dicumarol is given orally, and repeated again 24 hours later. Forty-eight hours after the initial dose, another prothrombin time is taken and this is repeated daily thereafter. If the first recheck shows that the patient is not a "hyper-reactor," and the level is not below 30 per cent of normal, then a daily maintenance dose is given, which is usually about 100 mgm. The prothrombin level is kept between 30 and 50 per cent normal. If the initial fall is to below 30 per cent, then the effects of the dicumarol are neutralized by the administration of 72 mgm. of Hykinone, and if any hemorrhagic tendencies are noted, a transfusion of whole blood is given.

Once instituted, dicumarol should be continued until the clinical indication has subsided. As mural thrombi usually form between the fifth and sixteenth days, I would suggest it be continued for a minimum of three weeks, and as much longer as the patient is to be kept at fairly strict bed rest.

Although I have seen no series of cases reported on the subject, it must be that dicumarol will prove to be of value in preventing coronary thrombosis. In this regard, I recall a case of mine, a 42-year-old while female, who delivered a child one day, and 11 days later suffered a typical coronary thrombosis. The laboratory reported her prothrombin time as 150 per cent of normal, and certainly the increased tendency toward clotting favored the formation of the thrombus, even though there was undoubtedly an associated coronary artery disease. I certainly feel that in elderly or late middle age persons, especially with a known diagnosis of coronary disease, who, for surgical, orthopedic or other reasons, are to be confined to strict bed-rest for some time, dicumarolization should be carefully considered.

When giving dicumarol, aspirin and quinine should be given to the patient, as they add to the depression of the prothrombin formation.

CARDIAC ARRHYTHMIAS

Even though the greater number of deaths in myocardial infarction are from either embolic phenomena or from congestive failure, an appreciable portion die of ventricular fibrillation or Adams-Stokes syndrome of paroxysmal asystole. A fairly large percentage of cases will exhibit various of the cardiac arrhythmias, any of which must be considered evidence of a more unfavorable prognosis, and which, depending on their mechanism, will show a change in the myocardial irritability.

The exact diagnosis of the various cardiac arrhythmias occurring in a case of infarction is quite important, and the electrocardiogram is almost infallible in this field, although most of the arrhythmias can be diagnosed at the bedside. The important fact, however, is to determine whether the myocardium has become more irritable or less irritable, as an increase in irritability is a threat of ventricular fibrillation, and a decrease in irritability is a threat of Adam-Stokes syndrome.

Arrhythmias of increased myocardial irritability:

1. Ectopic beats.

The sudden appearance of ectopic beats definitely indicates an increase in myocardial irritability, but they in themselves do not require medical intervention. However, should the ectopics become very frequent, exhibiting a pulsus bigeminus, and become more than mildly symptomatic, then intervention must be considered. If the condition becomes quite symptomatic, I feel that quinidine, usually administered with an initial dose of six grains, and three grains each subsequent hour for as many as eight doses until the condition is relieved, is indicated. Certainly, digitalis is not indicated here, and will frequently turn the ectopics into either auricular or ventricular tachycardia.

2. Auricular flutter.

Usually this condition is diagnosed only by electrocardiography and is an indication for medical intervention. After a myocardial infarction, quinidine is the drug of choice, and it should be administered as mentioned before. Frequently, even though a normal sinus rhythm is re-instituted, a maintenance dose of quinidine is required to maintain normal rhythm. Occasionally quinidine may fail to provoke a normal rhythm, and when this happens it becomes necessary to use digitalis to produce a slower ventricular rate. However, when using digitalis, it must be remembered that it increases the myocardial irritability and consequently must be administered very cautiously. Usually, when digitalis is given in auricular flutter, the flutter is transformed into auricular fibrillation, and this condition may, even in the face of continued digitalis, revert to a sinus rhythm. However, quinidine should be given adequate clinical trial, as it acts to decrease the myocardial irritability and increase the refractory period of the heart muscle.

3. Auricular fibrillation.

Usually, paroxysms of fibrillation occurring after infarction will be self-limited and will revert to a normal sinus rhythm of their own accord. However, a rapid fibrillation is often moderately or severely symptomatic, and may produce dyspnea and even pulmonary congestion and edema. Should the fibrillation become so symptomatic, or should it persist at a rapid rate for more than a few hours, then intervention is indicated. Here, as in flutter, quinidine is the drug of choice, although when it fails to produce a normal sinus rhythm, digitalization is necessary to produce a slower ventricular rate.

4. Paroxysmal auricular tachycardia.

This is generally considered a prolonged series of auricular ectopic beats arising from an extra-sinus node focus; it is evidence of definite myocardial hyper-irritability. Usually this condition will respond to carotid sinus compression, eyeball pressure, or will revert to a normal rhythm of its own accord. However, in the face of persistent or symptomatic auricular tachycardia, medical interference is justified. Frequently, 1.0 cc. of prostigmine methysulfate will give relief, or will activate the vagal control, and after it has been given the carotid sinus compression should again be tried. If all else fails, then quinidine will usually give relief. Here again, if quinidine fails, cautious administration of digitalis is necessary to prevent ventricular fatigue.

5. Ventricular tachycardia.

This is usually an electrocardiographic diagnosis, and when found is evidence of very marked myocardial irritability. It is an immediate indication for medical intervention. Quinidine is the only drug that offers relief in this condition, and it must be given in adequate dosage. Six grains as the initial dose, repeated every hour, will usually give a reversion to normal sinus rhythm, but, if after the third dose, no relief has been obtained, 12 grains each hour should be tried. Levine mentions one case in which 1.5 grams every four hours was the smallest dose that would prevent recurrence. After a normal sinus rhythm has been obtained, a maintenance dose of quinidine must be given as long as necessary.

6. Sinus tachycardia.

This is not evidence of increased myocardial irritability, but usually evidence of a threatening or incipient decompensation. Usually this condition is best remedied by increased administration of oxygen, aminophylline, and barbiturates, but should it continue for a protracted period, the careful administration of small doses of digitalis is indicated.

Arrhythmias of decreased myocardial irritability:

1. Dropped beats, (partial heart block).

This is minimal evidence of decreased myocardial irritability, and, unless markedly symptomatic, does not call for special medication. However, the sudden appearance of dropped beats might be a precursor of the very serious Adams-Stokes syndrome, and as such should call for very careful observation of the patient and should suggest that a syringe containing adrenalin be kept handy. Dropped beats are usually a direct contraindication to the use of quinidine.

2. Heart block, complete.

This is definite evidence of decreased irritability, but does not call for medical intervention unless there is accompanying syncope. If syncope should appear, the administration of barium chloride in ½ to one grain doses three or four times a day will often give relief. If, as it often does, congestive failure should set in, the heart block is no contraindication to the use of digitalis.

3. Pulsus alternans.

This is a finding of grave prognostic value, and is evidence of an increase in the refractory period of the heart muscle. It is very important that this not be confused with a pulsus bigeminus due to ectopic beats, as pulsus alternans usually calls for the use of digitalis, and a bigeminy does not.

4. Stokes-Adams syndrome.

This is the most serious complication of decreased myocardial irritability, and it is always a potential cause of sudden death following myocardial infarction. The attacks of asystole may be for only a second or two, or may persist for a minute or more. Occasionally, instead of absolute asystole, the heart rate will drop to 20 beats per minute, and syncope occurs that may last for some time. Whatever the duration, the appearance of Stokes-Adams syndrome in acute myocardial infarction calls for rather heroic treatment. For the acute at-

tack, with absolute asystole, the intracardiac injection of 0.5 cc. of a 1:1000 solution of adrenalin is immediately indicated. For the attacks of paroxysmal extreme bradycardia, the same amount given intravenously will suffice.

Prophylactic therapy is important, and consists of either barium chloride (½ to 1 grain q. three to four hours) or ephedrine, ⅜ grain every three hours. Occasionally Tr. of belladonna (gtt. x q. 4-6 hours) is of some benefit.

GENERAL TREATMENT

Whatever the cardiac emergency, it must be remembered that it is a complication of myocardial infarction, and the treatment of the basic condition must not be forgotten. Oxygen, administered at six to eight liters per minute by full face mask, is of prime importance. Aminophylline, given either by mouth (gr. iii q. 4. h), or by rectal suppository (gr. viiss) is also beneficial. Occasionally, especially in the face of pulmonary edema or congestion, a half-gram of aminophylline mixed in with some 25 cc. of 50 per cent glucose, given intravenously, may relieve considerably coronary spasm and act as a cardio-tonic. Parenteral vitamin B preparations are usually indicated in acute myocardial infarctions, and may help to prevent some of the more acute emergencies.

In conclusion, I would like to emphasize that cardiac emergencies are frequently seen following acute myocardial infarction, and that an accurate diagnosis is the prerequisite for accurate therapy. Although digitalis is still one of the most important drugs used in the treatment of heart disease, it has definite indications and contraindications and should not be used promiscuously. Quinidine is life saving when indicated, but a killer when abused.

I think that the old saying holds true in these emergencies more than any place else: "Be sure you're right; then go ahead."

Change in General Practitioner Award

A resolution changing the method of selecting the outstanding general practitioner of the year was adopted by the House of Delegates of the American Medical Association at its meeting in Chicago in June, and the new plan will be followed when the award is presented at the second annual A.M.A. interim meeting in St. Louis late this year.

Introduced by Dr. E. S. Hamilton of the Illinois State Medical Society, the resolution provides that the selection originate at the county society level and proceed through state organizations so that local or state groups may pay tribute to the family physician of their choice. The plan will operate as follows:

1. Each county medical society shall be urged to name the candidate of its choice as the outstanding general practitioner for the year within its jurisdiction, basing its selection on nominations and recommendations from any responsible source, lay or professional.

2. The name of each candidate so chosen by a county medical society, with all pertinent data, including recommendations of lay groups and individuals, shall be submitted by the county medical society to the state medical society of which it is a component part.

3. Each state medical society, through whatever agency each may designate, shall select from among the candidates submitted by its component county medical societies one name to be declared the outstanding general practitioner within the state.

4. The candidate so selected at the state level shall be the sole candidate from that state, and his or her name, with all pertinent supporting data, shall be submitted to the Board of Trustees of the American Medical Association.

5. The Board of Trustees shall select from the names submitted by state societies the names of three persons, these names to be submitted in turn to the House of Delegates, which shall select one name to be declared the outstanding general practitioner of the United States for the year.

6. Any state society desiring to do so may establish and confer a suitable award with fitting public ceremony on the physician it has named as the outstanding general practitioner of that state for the year.

Regional Medical Officer Needed

The United States Civil Service Commission announces that applications may now be filed for the position of regional medical officer for the civil service office in St. Louis. The position has an entrance salary of $7,432 per annum with automatic salary increases each year. Information and application blanks may be secured from the Board of U. S. Civil Service Examiners, 317 Federal Building, Topeka.

Pharmaceutical Manufacturers Elect

The American Pharmaceutical Manufacturers Association, at its annual meeting in Havana, Cuba, recently elected as president Dr. Theodore G. Klumpp. He has been president of Winthrop-Stearns, Inc., pharmaceutical manufacturers, since its organization a year ago and prior to that time was president of Winthrop Chemical Company, Inc., a predecessor company.

Although the x-ray apparatus detects pulmonary lesions more readily than the stethoscope, chest roentgenology has not yet advanced to the point where it can be substituted for logic or reasoning. Diagnosis is a function of logic, and the diagnosis of chest diseases, especially tuberculosis, depends on the correlation of clinical, roentgenologic and bacteriologic studies. No x-ray machine can do this. The diagnosis of tuberculosis or its degree of activity should never be based wholly on the x-ray report of the chest findings. "Never put your complete trust in shadows" is a sound medical adage that applies especially to tuberculosis.—*Joseph D. Wassersug, M.D., N.E. Jnl. Med., July 13, 1947.*

FALSE DIVERTICULA OF THE APPENDIX*

J. H. Hill, M.D.

Kansas City, Kansas

Consideration of false diverticula of the appendix is warranted by the relative frequency with which they are encountered in surgical material; calculations based on seven of the larger series reported in the literature[1, 3, 4, 5, 6, 9, 11], show an average incidence of .51 per cent. Furthermore, false appendiceal diverticula are either cursorily mentioned or omitted in most reference books. Frequent inflammation, a tendency to perforate and occasional mucocele formation are characteristics of false appendiceal diverticula that further call atention to this condition. This report outlines the pathologic features observed in a study of 43 appendices with diverticula.



Figure 1. Photomicrograph of appendiceal diverticulum showing a portion of mucosa herniating through muscular defect, m-m, on mesenteric border. x6.

False or "pseudo" diverticula lack a muscular layer in the wall of the sac and are considered acquired lesions; true diverticula contain all the intestinal layers in the wall of the sac and are thought to be congenital abnormalities. Practically all appendiceal diverticula are of the false type; in the German literature they are appropriately referred to as "wandherni" or wall hernias. Usually only a portion of the mucosa is diverted through a defect in the muscular layer but sometimes the entire mucosa is diverted outside the muscular coat (compare figure 1 and figure 2). More than one diverticulum may occur in a single appendix and a remarkable case reported by Pack and Scharnagel[8] had 36 separate diverticula. A false diverticulum may occur at any point on the appendix but is usually on the mesenteric border and in the distal half. Unusual outpouchings of the mucosa that do not penetrate the muscular coat are sometimes called intramural diverticula; cases of intramural diverticula are reported by Cooke[2] and Wunder[12].

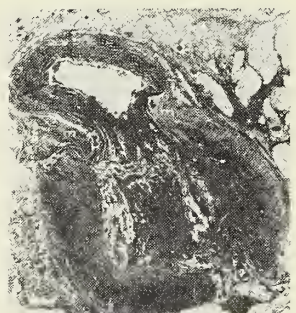


Figure 2. Photomicrograph of appendiceal diverticulum showing entire lumen outside muscular defect, m-m. x9.



Figure 3. Photomicrograph of "intramural" diverticulum (healed dissecting appendicitis. Note lumen *l*, extending deep into the submucosa and half-way circling the appendix. The muscularis, *ml*, is very thin in this segment. Mucosal glands dipping deep into the submucosa are indicated by *a*. x10.

The pathogenesis of false diverticula is not clearly understood and two theories are dominant, one of which may be called the "muscular contraction" theory, and the other, the "mucosa regeneration" theory. According to the muscular contraction theory, which is based on inferences from morphological observations and a few experiments on dogs, it is the contraction of the muscle coat that is the chief active factor in driving the mucosa and submucosa through a weak point in the muscular coat (Stout [10]). Weak points in the muscular layer are thought by Stout to be especially broad vascular hiati, or scars in the muscular layer following suppuration, or perforations occurring in an attack of acute inflammation. Using dogs as experimental animals, he removed a small portion of the muscular coat of the appendix which resulted in vigorous contractions and in production of a diverticulum. Longitudinal shortening of the contracting muscular coat was thought to produce redundency of the mucosa and submucosa which tended to be diverted wholly, or in part, through muscular defects. He noted hypertrophy of the muscular layer in human appendices showing diverticula and suggested this might indicate increased function. A morphological study by Collins[1] revealed a high incidence of muscular hypertrophy and inflammatory stricture of the



Figure 4. Photomicrograph of submucosa herniating through muscular defect, m-m; the mucosa is absent. Has been called "solid" diverticulum; may represent involuted false diverticulum. Submucosa is indicated by *s*. x9.

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lumen in appendices showing diverticula; the stricture of the lumen was believed to cause excessive muscular contractions predisposing to diverticulum formation.[1] According to the mucosal regeneration theory, there is a protrusion of the mucosa following an attack of acute perforative appendicitis with subsequent subsidence of the infection; this is followed by regeneration of the mucosa within the former extramural abscess cavity. As recently outlined by Kline, Young and Straus[4] the factor of muscular contraction is apparently disregarded, regeneration alone accounting for the mucosa lining a former extramuscular abscess cavity.

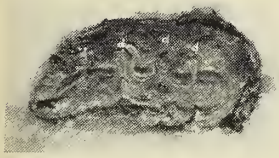


Figure 5. Photograph of appendix cut longitudinally to show multiple false d.verticula *d*, extending into the mesoappendix.

MATERIAL

The basis of this report is a gross and microscopic study of 43 appendices, each bearing at least one diverticulum. These are the cases collected in the department since 1923; in this period 14,870 surgically removed appendices have been examined so that the incidence of diverticulum formation in the appendix is .29 per cent. One example is recorded in the necropsy material in the department. This was a woman presenting evidence of an acute intra-abdominal inflammation; she was not operated and died suddenly while preparing to go home.

FINDINGS

The findings of this study are in general agreement with those of similar studies. The incidence of .29 per cent in this series of 14,870 appendices may be compared with the average incidence of .51 per cent calculated from approximately 28,000 appendices reported in seven of the larger series in the literature. All of the diverticula studied lack a muscular layer in the sac and are hence of the pseudo or false type. Examples of false diverticula are shown in figure 1, figure 2 and figure 5.



Figure 6. Photograph of appendix cut slightly away from sagittal plane showing periappendiceal mucous cyst probably arising in a diverticulum.

The usual pathologic change in the appendices containing diverticula is a chronic hyperplastic inflammation with varying amounts of acute inflammation and healing. The usual pathologic process occurring in the diverticula is an acute inflammation. Pathologic changes in addition to false diverticula in the 43 appendices are as follows:

multiple diverticula	20 appendices
solitary diverticula	23 appendices
acute appendicitis	24 appendices
acute diverticulitis (acute perforation in four)	24 appendices
previous appendiceal inflammation (old perforation in four)	37 appendices
hypertrophy of the muscularis	29 appendices
mucocele of the appendix, early	1 appendix
mucocele of the diverticulum, early	4 appendices
mucocele of the diverticulum, advanced	1 appendix

A search for examples of mucosa regeneration into an extramuscular abscess cavity revealed two instances in which the histological interpretation seemed probably correct while in eight other appendices this interpretation was equivocal. In two appendices the mucosa was seen extending out over the surface of the appendix from the perforation in the wall. Attempts to identify muscular defects as focal areas of inflammatory destruction or as congenitally widened vascular hiati were unsuccessful in most instances. While it is not difficult to identify some muscular defects as enlarged vascular hiati, it is not possible to rule out inflammation as a factor in the enlargement.

In the course of this study seven appendices were found that showed unusual mucosal outpouchings that do not pentrate the muscular layer. Intramural diverticula is the term that has been applied to such lesions and they appear to be examples of healed dissecting appendicitis.

Solid submucosal hernias through muscular defects were incidentally observed five times. Two such lesions are interpreted as involution of a false diverticulum as suggested by Kline and associates and an example is shown in figure 4. The other three appendices show knuckles of submucosa diverted through vascular hiati without any remarkable changes being noted in the appendix proper.

An early mucocele is present in one appendix appearing as a mildly dilated lumen containing mucus which is diverted outside the muscular layer. Another appendix shows production of mucus in the diverticulum with focal areas of calcification. A third appendix, shown in Figure 6, bears a diverticulum filled with mucus and surrounded by chronic inflammatory tissue. Accumulation of mucus with mild acute inflammation was present in three other diverticula and was interpreted as representing early periappendiceal mucocele formation. In none of these cases was a layer of hyperplastic epithelium secreting mucus found lining the mucocele cavity.

DISCUSSION

This morphological study fails to throw new light on the pathogenesis of false diverticula of the ap-

pendix. Experimental studies appear to have been neglected in this connection and might be pursued with profit.

The predilection for surgical material and the infrequency with which false diverticula are seen in necropsy material have been commented on by Edwards[3] and Pack and Scharnagel[8]. With them we agree that these lesions are probably associated with symptoms that sooner or later lead the patient to the surgeon. The difficulty with which diverticula are said to be found in fresh, unfixed material[7, 11] may explain this discrepancy since necropsy material is usually unfixed and appendices are not usually examined in great detail at the post-mortem table. However, in a series of 1,054 unselected postmortem appendices, Collins found a .66 per cent incidence of false diverticula.

Diverticula are not associated with any specific clinical picture and, excepting rare instances in which the diverticula are visualized radiologically, the clinical diagnosis is not possible. Radiologic diagnosis is rare because of the frequency with which stenosis of the lumen occurs. Tentative surgical diagnosis may be made on the finding of nodular eminences on the appendix, particularly if it shows evidence of chronic hyperplastic inflammation. An intramesenteric diverticulum may be incised by the surgeon during appendectomy thereby contaminating the field (Pack and Scharnagel) and also indicating the diagnosis. Usually it remains for the pathologist to make the diagnosis but when the experience of Stout and that of Wolff[11] is considered, it appears that the pathologist may overlook some of the lesions by failing to make his transverse cuts a millimeter apart or by failing to incise the organ longitudinally. When special search was made Stout found five examples in a year whereas in the previous ten years only a single case had been reported in that laboratory. In a different laboratory Wolff found 33 examples in three years with none previously reported. Factors tending to obscure false diverticula are intramesenteric location, small lesions buried in periappendiceal inflammatory tissue, and destruction through abscess formation. A small diverticulum may be destroyed by perforation so that the diagnosis is not possible; such an event may be suspected when minimal acute changes are present in the appendix proper and when the clinical course is not that of a typical perforating appendicitis.

SUMMARY AND CONCLUSIONS

A study of 43 appendices bearing false diverticula reveals 24 showing acute diverticulitis with acute perforating diverticulitis in four and some type of mucocele formation in six diverticula. The average incidence in some 28,000 appendices reported in the literature is .51 per cent; the incidence in this series of 14,870 appendices is .29 per cent. The usual pathologic change in appendices bearing false diverticula is chronic hyperplastic inflammation. While inflammation appears to be a factor in the pathogenesis, its exact role remains uncertain.

REFERENCES

1. Collins, D. C.: Diverticula of the vermiform appendix. Ann. Surg. 104:1001-1012, 1936.
2. Cooke, W. E.: Intramural diverticulum of the vermiform appendix. Lancet, 2:1488. 1937.
3. Edwards, H. C.: Diverticula of the vermiform appendix. Brit. J. Surg., 22:88-107, 1934.
4. Kline, B. S., Young, A. M., and Straus, R.: False diverticulum formation following acute perforative appendicitis. Arch. Path., 31:25-36, 1941.
5. MacCarty, W. C., and McGrath, B. F.: Clinical and pathological significance of obliteration, carcinoma and diverticulum of the appendix. Surg., Gynec., and Obstet., 12:211-220, 1911.
6. Moschowitz, E.: The pathological diagnosis of diseases of the appendix based on the study of 1500 specimens. Ann. Surg., 63: 697-714, 1916.
7. Mulsow, F. W.: Diverticulosis of the appendix, Arch. Surg., 24:923-932, 1932.
8. Pack, G. T., and Scharnagel, I: Diverticulosis of the vermiform appendix. Am. J. Surg., 5:369-371, 1928.
9. Sauer, P. K.: Diverticula of the appendix. Am. J. Surg., 10:564-570, 1930.
10. Stout, A. P.: A study of diverticulum formation in the appendix. Arch. Surg., 6:793-829, 1923.
11. Wolff, E. A.: Diverticula of the appendix. Med. Times. 66: 232-237, 1938.
12. Wunder, E.: Divertikelbildung an der Appendix. Frankfurt. Ztschr. f. Path., 51:18-22, 1937.

TUBERCULOSIS CASE-FINDING IN COLLEGE*

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Favorable reduction in the death rate from tuberculosis instills a false sense of security. Emphasis upon other equally urgent public health hazards adds to the tendency to minimize the extent of the tuberculosis problem still confronting us. It is true that the death rate from tuberculosis in the registration areas of the United States has been reduced from 245 cases per 100,000 population in 1890 to 40.1 per 100,000 in 1945, and that Kansas ranks in the enviable position of sixth among the states with a rate for 1946 of 17.1 deaths per 100,000 population. On the other hand, consider these facts. In a 44 months period during the recent war, 206,200 deaths in the United States were attributed to tuberculosis, compared with what seemed like an appalling 208,000 deaths in battle.[1] Tuberculosis is the leading infectious cause of death, second only

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to accidents, in the age group from 20 to 30 years, and now there appears to be a gradually increasing death rate from tuberculosis in the age groups over 50. The old idea that it is rare to develop active tuberculosis later in life, or to have quiescent tuberculosis become activated has been dealt a serious blow by the convincing evidence reported by Medlar recently.[2] In 7,631 consecutive autopsies performed during a ten-year period on individuals over 16 years of age and from all hospital services, he found that one of every ten cases revealed tuberculous cavitation in the lungs. Tuberculosis as the cause of death showed the highest incidence in the age group 16 to 40 years, but two out of every three active cases of tuberculosis were over 40 years of age and many of these had died from other causes. For these reasons we must continue to recognize in tuberculosis a diminishing but nevertheless real public health problem. Unlike equally dangerous killers, cancer and heart disease, tuberculosis is contagious and as long as an active case exists, the rest of the community is in danger.

Until about 1920, control of tuberculosis centered largely upon finding cases among direct contacts and among individuals who presented definite physical signs, and upon treatment at home or in a sanatorium by good food, fresh air and rest, the latter aided by pneumothorax. By 1925 emphasis was shifting toward early diagnosis, prevention by attention to children in marginal states of nutrition, epidemiological surveys and education about tuberculosis. Surgery was developing new technics. Tuberculin, formerly used as a therapeutic agent mainly, was diverted to use as a diagnostic aid in finding tuberculosis and in determining the prevalence of tuberculous infection. Newer methods of rapid and less expensive radiography, beginning with the roll paper film and leading soon to the use of photofluorography with the 4 by 5 inch, the 35 mm. and the 70 mm. films, made surveys simpler. Along with the development and evaluation of new tests for diagnosis, there were changes in program technics.

Ardent discussion was aroused over the relative merits of the various filming media in screening programs. The last word, perhaps, has not been said, but recently a careful study was reported with the conclusion that "purely from the standpoint of their effectiveness in finding cases of tuberculosis, none of the methods, not even the 14 by 17 inch celluloid, is superior to any of the other methods."[3]

Searching for tuberculosis among contacts of active cases was, and still is, a logical procedure, except that it is often difficult to trace the contacts. In the absence of other better technics it became the case-finding method of choice for some years. This method has been credited with as little as 25 per cent of new cases reported annually in areas where follow-up of families and contacts of active cases was carried out in the best possible way.[4]

Beginning as early as 1920 in isolated areas, but more commonly five to ten years later, the tuberculin test rose rapidly in popularity as a method of determining the tuberculosis infection rate in a community and of identifying cases that warrant more complete examinations. Limitations of this method are the necessity of more than one observation of a patient, and the conflicting theories concerning the effect of tuberculous infection upon man. On the one hand are those who believe that the non-reactor to tuberculin is safer from tuberculosis than the reactor: the one who has had a tuberculous infection; and that the sensitivity to the tubercle bacillus developed by a primary infection overbalances the value of the immunity conferred upon the victim. Opposed, and exhibiting impressive data in support of their stand, are those equally sincere who believe that tuberculosis takes a higher toll in previous non-reactors than it does in reactors who developed a state of immunity either by previous infection or by vaccination.

Another cloud obscured the value of the tuberculin test coincidental with the increased use of the x-ray in surveys, when it was shown that calcium often was found in the lungs of non-reactors to tuberculin, and that frequently the reactors exhibited perfectly normal appearing lung pictures. Until relatively recently it was believed that the deposition of calcium in lymph nodes adjacent to the lungs or in the lung parenchyma spelled only one thing: tuberculous infection with efforts toward healing. We were taught that miliary tuberculosis was invariably fatal, and yet when we came to make extensive x-ray surveys we frequently found chest films showing widely scattered and numerous tiny calcium deposits. Smith[5] reported that the area in which there was a high rate of pulmonary calcification in non-reactors to tuberculin coincided with the endemic area of histoplasmosis. Palmer[6] carried these studies further, particularly in the Mississippi valley at the level of the Missouri river. Today when calcification is shown on the lung film identification of the origin may be furthered by the use of tuberculin and histoplasmin. By these studies the tuberculin test has gained in respectability as a diagnostic agent.

Tuberculosis case finding has been an integral part of the health service program at the University of Kansas since 1932, when we first tuberculin tested freshman and sophomore medical students. The following year the plan was extended to include all new students. With growing confidence in the

rationale of this simple public health procedure, the tuberculin test was used as a diagnostic agent in other than new students wherever the question of tuberculous infection presented.

Prior to the introduction of photofluorography and the use of mobile units in Kansas, our procedure was to tuberculin test first, then x-ray chests of all reactors. This method, in my estimation, is adequate in finding significant tuberculosis and tuberculous infection. It does not aid in finding non-tuberculous pulmonary pathology nor changes in extra-pulmonary topography.

As a matter of convenience and efficient use of the portable photofluorographic equipment, all new students were x-rayed at the beginning of the semesters, in September and in February. Simultaneously as a part of the entrance physical examination, each was given a one dose tuberculin test.

The screening method recommended by the Tuberculosis Committee of the American Student Health association, which is backed by the National Tuberculosis association and has the best of consultants, is the regular two-dose Mantoux tuberculin test using either purified protein derivative or a known uniform brand of old tuberculin, followed by chest x-ray of all reactors. Annually, non-reactors should be re-tested and reactors x-rayed. We have not been able to comply fully with the latter portion of this ideal program.

The testing method of choice is the intradermal, or Mantoux. When the patch test was introduced we gave it a trial along with the Mantoux. It is our experience that this test is neither sufficiently accurate nor satisfactory for the adult group with which we work. The only point in its favor is that it is painless to administer.

The recommended dosage of old tuberculin is 0.01 mgm. for the first test, followed by 1.0 mgm. if no reaction is noted. Purified protein derivative is given ordinarily in amounts of 0.000,02 mgm. for the first dose and 0.005 mgm. for the second. If the chief purpose of tuberculin testing is to find significant cases of tuberculous infection, a larger single dose may be used, since it has been shown that practically all tuberculosis of importance in an ambulatory population will be picked up on the single dosage. If the purpose is to follow the incidence of tuberculous infection, then the two dose test is preferred.

Although the severity of the reaction to tuberculin may bear no correlation to the magnitude nor extent of tuberculous infection, it is of importance from the view point of the patient. In any testing or immunizing programs the objective should be to gain the maximum information or immunity with the least discomfort to the patient, if widespread public response is desired.

Casting about for a suitable intermediate strength single dose of tuberculin, we noted that a dosage of 0.000,5 mgm. gave too many four-plus or severe reactions, evidenced by a "sore arm," inflammation about the area of the test and necrosis at the site of the tuberculin injection. Increase of the initial dose to 0.000,2 mgm., which is only ten times the first strength, gave few unfavorable reactions and increased the number of reactors from approximately 10 per cent to 14 per cent. When testing a thousand students this was an appreciable reduction in the number who needed the second test done.

As stated previously, the significant reactors are picked up on the initial dose. When staff and time were at a premium during the war, we settled upon a single test dose of 0.000,2 mgm. of the purified protein derivative, and in addition only a part of the new students were tested; the remainder were x-rayed only.

Contraindications to the test do not exist. There is no serum involved. The test is practically painless. It will not kindle quiescent tuberculosis. In 20,000 tuberculin tests we have never seen a disabling reaction. The one year we used 0.000,5 mgm. as the initial dosage there were fourteen four-plus reactors (necrosis at the site of injection) in 1700 students tested; in any other year since the introduction of the purified protein derivative there have never been more than seven. As infrequently, there may be regional lymphadenitis.

Results of this survey over 15 years bear out the fact that tuberculosis does exist in active state in otherwise healthy young people. Among 19,442, students mainly, who were tuberculin tested, 5757 reacted, 29.6 per cent of the total. An additional 5026 persons were x-rayed only during a four year period, making the total surveyed 24,468. The majority of this group fell between the ages of 18 and 24 years with an increase in the average age the past year coincidental with the preponderance of veterans returning to college.

Since 1933 there has been a decline in the number of tuberculin reactors from a high of 38 per cent down to 22 per cent. Over all these years men lead women by around five per cent in the number of reactors.

On the basis of reaction to tuberculin and subsequent chest x-ray, 69 cases of reinfection type tuberculosis were diagnosed after due periods of observation and adequate followup; 29 cases were found to have active infections. In addition, seven cases were picked up who gave presumptive or accurate histories of previous tuberculosis. Among food handlers, employees, faculty and a few students

who, by virtue of transferring to Kansas University as late enrollees thus missed the entrance examination, 11 more cases of tuberculosis were diagnosed, five were proved active in our clinic or reported active to us by their own physicians in the case of non-students; six remained on the list of inactive or quiescent reinfection tuberculosis.

Tuberculin tested 1932-1946 inclusive	19,442
Included only on photofluorographic survey	5,026
Total surveyed	24,468
Tuberculin reactors	5,757
Percentage of reactors	29.6
Tuberculosis diagnosed	87
Active tuberculosis diagnosed	34

That tuberculosis can be found where it is sought is best illustrated by data taken from the annual report of the Tuberculosis Committee of the American Student Health Association for 1945-46. In 362 colleges having adequate case finding programs, 508 cases of tuberculosis were found among 620,719 students; where diagnosis was left to presentation of symptoms or physical signs, only five cases were found among 82,970 students, a rate of 81 cases per 100,000 in the first instance against 6 per 100,000 in the latter.[7]

Adequate follow-up in our program consists of checking upon the entrance history and physical examination, 14 x 17 films at periods of one to three months, complete blood counts, sedimentation rate determination, temperature and pulse observation with the patient at rest, and sputum and gastric washings examination, both by direct smear and by culture. We have not gone to the extent of bronchoscopic aspiration nor of stool cultures.

Appraisal of the program would not be complete without mention of the difficulties of making a diagnosis of active tuberculosis. In our experience daily sputum examination has been of less value than examination of pooled fasting gastric washings. Only ocasionally do we find a student with tuberculosis far enough advanced to give sputum. When acid-fast organisms are found there is always the controversial point as to whether they are tubercle bacilli or saprophytes. Regardless of the merits of the question, when a patient is found to have acid fast organisms in sputum or gastric contents, and there is increasing x-ray evidence of pulmonary involvement, he should have the benefit of rest until the argument is settled.

More recent understanding of the pathology of primary tuberculous infection at different age levels makes it more difficult for the radiologist or the clinician to tag a minimal infiltrative lesion, in the absence of old lesions, as definitely reinfection tuberculosis or to state that a calcified lesion is "healed." Medlar found in 100 autopsies on adults dying from tuberculosis that 34 per cent died from primary infection as indicated by caseous lymph nodes. Twenty-eight died from the reinfection type; 17 had both calcified and caseous nodes and may be interpreted as dying from reinfection which acted like a primary disease. He concludes that "for the development of progressive pulmonary tuberculosis, that is, phthisis in the adult, it is essential that the tubercle bacillus become lodged in the cephalic portions of pulmonary lobes whether it be a first or a subsequent infection."[8]

As we look back over our diagnoses we find several cases in which the classification of primary or reinfection tuberculosis was based upon the x-ray report and the location and nature of the involvement. In one case in particular we found acid fast organisms in the sputum. The x-ray showed only a minimal infiltration in one apex. The tuberculin test reacted. After a short period of bed rest the patient was discharged with negative sputum, a rapidly decreasing pulmonary shadow, but a shadow which persisted, and refutation of our preliminary diagnosis of tuberculosis. In the light of recent knowledge this case would now be classified as an active (primary) first infection in an adult.

Another point of interest is that rarely were there significant signs upon physical examination of the chest of these young people who are picked up on the basis of tuberculin reaction, chest x-ray and gastric content culture. As a corollary, the fewer the physical findings, the shorter the period of hospitalization and the sooner the patient returned to school.

Discussion of this case-finding program cannot be dismissed without a word about the criticism that the harvest of active tuberculosis is low in such a group of young, generally healthy, well nourished men and women from above the marginal level of living conditions. The best answer is that tuberculosis does occur in this age group; left undetected it takes a high toll in lives and economic loss; and the continuation of a case finding program has inestimable health education value in a group that turns out a large proportion of civic leaders.

BIBLIOGRAPHY

1. Yerushalmy, J.: Ext. P. H. Rep. 61: 687-516, April 6, 1946.
2. Medlar, Edgar M., Bull. National Tbc. Assoc.; 33; 5-17, Jan., 1947.
3. Birkelo, Carl C., Chamberlain, W. Edward, Phelps, Percy E., Zacker, David and Yerushalmy, Jack; JAMA: 133: 359-365, Feb. 8, 1947.
4. Hilleboe, Herman E.: Journal-Lancet 57: 225-228, June, 1947.
5. Smith, C. E., Med. Clinics N. America, 27: 790-807 (1943).
6. Palmer, Carroll E., Pub. Health Reports 60: 513-520, May 11, 1945.
7. Ann. Rep. Tuberc. Com. Am. St. Health Assoc. 1945-46, J. Lancet 67: 136-141, April, 1947.
8. Medlar, E. M., Arn. Rev. Tuberc. 55: 517-527, June, 1947.

CANCER OF THE LIP

INCIDENCE

Cancer of the lower lip makes up 25 to 30 per cent of the cancers of the oral cavity. It occurs preponderantly in men, and is rare in Negroes. The most common known cause is prolonged exposure to sunshine, cold, or wind. Some of these cancers also develop on an area of leukoplakia.

PATHOLOGY

The tumors may be either of an infiltrating ulcerative type, or the thickened indurated lip with a smaller central area of ulceration—the "exophytic" type. Metastatic spread is not so early nor frequent as with other cancers of the oral cavity. The less differentiated the tumor the more likely it is to metastasize. The first spread is usually to the submaxillary nodes, later to the upper cervical nodes on the same side as the lesion. There is sometimes involvement of the submental nodes, and occasionally metastasis to the nodes of the opposite side of the neck if the lesion is near the mid-line.

DIAGNOSIS

The presence of an ulcer with an indurated border on the lower lip, or a thickened lesion with an ulcerated area included, may be an obvious carcinoma. When there is doubt, a biopsy should be taken, including a small margin of the normal skin at the side of the lesion.

TREATMENT

Skillfully applied individualized roentgenotherapy or surgical excision will give a satisfactory percentage of cures in the majority of cases. Superficial radium therapy likewise gives satisfactory results, but is technically even more exacting than rotentgenotherapy. Interstitial radium therapy has been largely discontinued in this type of tumor. Neck dissections are indicated for the metastatic lesions if the primary lesion is controlled; if the metastases are only on one side of the neck and no distant metastases are demonstrated; if the tumor is a well differentiated one; and if the general condition of the patient is good. If dissection is contraindicated for any reason, external roentgenotherapy is useful.

PROGNOSIS

In small lesions treated by either excision or roentgenotherapy 90 or 95 per cent cures. The presence of submaxillary metastases decreases the percentage of cures and cervical metastases decrease it some further, but the prognosis is better than with other oral cancers having the same degree of metastases, and as high as 20 per cent five-year cures have been reported even with bilateral metastases following bilateral neck dissections.

Prepared by Committee on Control of Cancer

BLOOD AND PLASMA TRANSFUSION IN INFANCY

IMPORTANCE—May be literally lifesaving in a wide variety of illnesses. In severe infections, blood has an equal place in therapy with sulfonamides and penicillin, and is an ideal complement to the action of these drugs.

MODE OF ACTION—Blood transfusions supply the infant with:

Antibodies against a wide variety of infections.
Protein.
Erythrocytes (hemoglobin and iron)
Electrolytes (sodium, chlorides, bicarbonate, etc.).
Phagocytes.
Enzymes (particularly carbonic anhydrase).
Water.
Complement, platelets, prothrombin, hormones, vitamins.

TECHNIQUE—In infants blood is usually pumped by syringe into a small vein through a fine-calibre needle. Scalp veins are usually accessible, particularly in prematures. The internal saphenous, external jugular, and veins of the hand and wrist may also be used. *Fontanelle puncture is dangerous;* it easily produces subdural hematomas.

For best results, blood should be given as soon as possible after it has been drawn. Citrated blood has no inherent disadvantages.

Amounts of blood or plasma given should not exceed 10 cc. per pound per transfusion. In infections, small frequent transfusions are more effective than larger, less frequent, ones.

INDICATIONS—a. *In the Premature* blood transfusions are an integral part of treatment. The smaller the baby, the greater the need for adult blood.

Respiratory embarrassment (which may be due to very low or zero levels of the respiratory enzyme carbonic anhydrase)

Anemia (common to all prematures, and unaffected by iron therapy)

Hypoproteinemia (serum protein levels at birth may be as low as 3.7 grams per cent. A postnatal fall is to be expected)

Infections (prematures are extremely deficient in antibody stores. Their resistance is still further lowered by anemia and hypoproteinemia)

Shock (the premature is particularly susceptible to shock following birth trauma or hemorrhage, or in the course of an infection)

b. *In Any Infant:*

Severe infections — *Malnutrition*
Anemia — *Erythroblastosis*
Shock — *Bleeding dyscrasias*
Burns — *During Prolonged parenteral fluid therapy*
Preoperative and post-operative care of debilitated infants

PRECAUTIONS

1. The blood transfusion apparatus must be scrupulously clean.
2. Blood must be accurately typed and crossmatched.
3. Female infants should always be given Rh Negative blood unless they are definitely known to be Rh Positive.
4. Infectious jaundice or serum jaundice may be transmitted by blood or plasma; either may be fatal in infancy. Donors should have a negative history for jaundice; veterans are less desirable as donors than non-veterans. Fresh plasma from a single donor is probably safer than Red Cross plasma from serum pools.

The Committee on Child Welfare

PRESIDENT'S PAGE

Dear Doctor:

A few months ago I was literally frozen with a fear of the year ahead. Here we are at the halfway mark and thanks to you and all the others like you who have taken such an interest in the progress of the Society, the job has not been difficult at all.

Activities are in full swing for the home stretch. The outcome of our efforts in the next few months will have a telling effect on the future of Kansas medicine. The coming legislative session will be a deciding factor on several major issues.

Governor Carlson is to be most highly commended for the stand he has taken in support of the proposed expansion of the medical school and corrective measures of our state hospitals.

Legislation of a few years ago, permitting probate judges to send patients to the University Medical Center for study instead of committing them directly to a state hospital, has resulted in a great saving to taxpayers and a high percentage of patient rehabilitations. This is indicative of the need for concentration on the expansion of "production facilities" for doctors and nurses. Adequate early medical and nursing care in the home communities will obviously provide the most desirable corrective measures. Until such "production facilities" are in force, state hospital expansion will result in an increased problem of supplying adequate medical care.

The need for improvement at all our state hospitals still exists and must be corrected. Governor Carlson will undoubtedly consider the wisdom of providing a less expensive type of convalescent care for the approximately 50 per cent of senile individuals who are now populating some of our state hospitals.

Judging from reports received to date, the meeting of county society presidents and secretaries was a success. These officers came in direct contact with many of the problems of the state society. The influence of these officers in their local societies should react to the benefit of the parent organization.

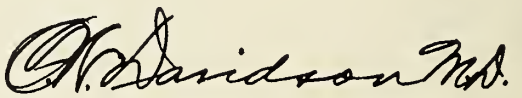
When one listens to the reports of our committee chairmen, he must be convinced with the fact that the interests of the Society are in capable hands. Certainly, everyone attending the presidents' and secretaries' meeting and the Council session must have a clearer conception of the need for our support of the National Physicians Committee, Blue Cross and Blue Shield, the Woman's Auxiliary and the Medical Assistants.

The address on Public Relations by Olaf Soward, news commentator of WIBW, at the presidents' and secretaries' meeting was one of the most inspiring deliveries one could hope to hear. It reminded me of the old lady who said, "Them that ain't got nothin' to boast about 'ceptin their ancestors, had ought to remember it ain't no trick to be an ancestor." Certainly he made us realize that it isn't enough to be just a doctor of medicine. We must humanize ourselves and take part in everything that betters our community.

Doctor Murphy, the little dynamo of the medical school, has sired the first positive and constructive plan for correcting medical and nursing shortages and postgraduate training at all levels. This program has widespread appeal and is rapidly implanting itself in the people's mind as a way for them to get and maintain proper medical care. They are all rapidly taking to the fact that the medical school is not just a branch of the university but it is the production center for doctors of all areas of the state.

There are so many things I would like to discuss with you, but it is about election time so I had better terminate for this time and let you get on with your share of our public relations program.

Sincerely,



President.

EDITORIALS

Early Ambulation

Medical progress is not always directed like an arrow toward a goal but occasionally vacillates in a lateral direction. Such an example is the current interest in the subject of early ambulation. During recent years medical authors have resorted to the use of superlatives in describing the benefits of this new theory on medical care and in their enthusiasm occasionally forget that early ambulation was suggested years ago.

A Chicago gynecologist wrote on this subject in 1899, advocating that physicians permit their surgical patients to rise earlier. In fact his argument rather closely resembles those that are heard today. During the intervening 50 years this theory remained pretty much forgotten while surgical patients had to recover as best they could in a hospital bed, oblivious to the fact that they could become well again much sooner and far more comfortably were they to walk away from the operating table.

Two recent papers on this subject attracted our attention. In one, early rising is held out as a panacea for those patients who now have long, stormy convalescences and a variety of complications following surgery. He cites 14 separate benefits to be derived from early rising and in fact makes the surgeon who occasionally permits his patient to be wheeled back to his hospital bed feel ashamed of himself. He denounces us squarely with the warning that we as surgeons no longer have the right to keep postoperative patients in bed except under certain well defined circumstances. The theory has been proved. Early rising no longer needs the test of time and represents the passing of another milestone in the care of the sick. We can no longer view bed rest with complacency. Perhaps it is that last comment, more than the others, that hurts us.

This author goes still further and gathers in colleagues from other specialties. The obstetrician now recognizes that no harm can come from getting patients out of bed early in the puerperium. Nor is it the surgeon only. The internist also is beginning to realize that bed rest in the treatment of medical diseases is dangerous. Specialists in heart conditions are radically altering the duration of bed rest for patients suffering acute coronary diseases. All this, he says, has passed the test of time and should no longer be a subject open to question or debate.

In the other current article the writer took a calmer view of the subject. He readily admits the benefit that might be derived in certain cases from allowing the patient to rise shortly after surgery but recalls that he is an older physician and subtly makes his point through the use of an illustration based on personal experience. A patient nagged him for a long period of time for a goiter operation. Unable to discover evidence for its necessity, he refused so the patient consulted "a colleague who is a better psychologist and collector, all of which helps to get the patients well." This other surgeon took the patient to the operating room and with a scalpel scratched her skin from ear to ear until it bled. Then he rubbed methylate into the wound until it burned enough to convince the patient that she had been through surgery. She recovered from the operation and was subsequently free from all her previous symptoms. The discussion was closed with the following comment, "This matter of psychology might be worth a lot in ambulatory advancement."

We are certainly not presuming to suggest that early ambulation is without value, but are conservative enough to believe that the individual patient's condition might be a point to consider. Where one patient might return to her household duties shortly after a hysterectomy, a day or two in bed might conceivably benefit another.

We believe in the theory of early ambulation. We also think that any theory is dangerous that attempts to warp the practice of medicine into conformity. Perhaps the answer to this question can be found in the philosophy rather than in the science of medicine. The physician who concentrates on providing service to each individual patient does not theorize in advance on whether he believes in early ambulation. Somehow in his plan for treatment that question resolves itself.

Evaluation of BAL

British anti-lewisite, known as BAL, was discussed before the Academy of Medicine of Cincinnati by John A. Luetscher, Jr., M.D., of the Johns Hopkins Medical School. The product is directly the result of experiments geared to the war emergency but its historical beginnings originated with Ehrlich and his early search for a cure of syphilis. Ehrlich postulated that if a drug is to act on a cell it must first attach itself to that organism. An arsenic, in order to kill a cell, must destroy some vital element within that cell. Since then it has been discovered that the heavy metals are readily combined with the -SH group known as the thiols. It is apparently this grouping in the living cell that is the arseno-receptor. They quickly disappear as each cell or enzyme is attacked by the arsenic. As a result the enzymes are activated and the cell can no longer function normally or even survive.

As a converse to this discovery it seemed logical that the induction of very large amounts of sulfhy-

dryl compounds would prevent injury of these organisms and thereby prevent the death of animals after large doses of arsenic. A practical difficulty arose in that effective doses were toxic and that the protection lasted only a brief period of time so that death from poisoning was merely delayed and not prevented. The most practical solution found up to the present is BAL, which was specifically prepared as an antidote for lewisite. This product was found to have an affinity for arsenic and certain other heavy metals. Chemically it is quite simple in that it is composed of glycerol with sulfur substituted for two of the oxygen atoms. This reagent formed such stable compounds with the heavy metals that it was possible not only to protect animals against the toxicity due to heavy metals but even to reverse the action once it had occurred. It is thus possible to remove arsenic from the cells.

Although BAL appears to be specific in its action against certain types of metal poisoning, the results are not universally excellent. BAL is useful in the treatment of arsenical dermatitis, in encephalopathy following intensive arseno-therapy, and in those rare accidents where excessive dosages of arsenical antisyphilitic drugs have been given. Such accidents previously led to fatal conclusions, but with prompt administration of BAL it is now possible to save a majority of patients who have been so treated. BAL has also proved effective in the treatment of mercury poisoning and has saved the lives of numerous persons who attempted suicide in that way. In the treatment of other metallic poisonings its effectiveness is still undetermined. A few patients have received moderate relief for gold intoxication and occasionally benefits have been derived in treatment for cadmium and zinc poisoning, but in the majority of these instances and especially in lead poisoning, in spite of the fact that the excretion of metal is greatly increased following the administration of BAL, the clinical symptoms remain unaltered.

According to this author BAL may be used successfully against arsenic and mercurial poisoning. The results are not nearly so striking in a second group of metals such as gold, bismuth, nickel, etc., but might be better if larger doses of the antidote were administered. It is impossible to say whether BAL has any effect against antimony poison, and thallium and silver are not particularly affected by BAL in one way or another. The final group of metals containing lead and selenium gives evidence that BAL is contraindicated, in which the drug is not antidotal but the toxicity of the two compounds is actually added together.

BAL is put up as a solution in benzyl benzoate and peanut oil in a 10 per cent concentration. The maximum dose advocated in an emergency is five mgm. per kilogram of body weight. Three mgm. per kilogram is relatively safer and this can be repeated at intervals of four hours for the first two or three days and then decreased to four times on the third day and perhaps twice daily thereafter for seven days or more. Most of the effect of BAL has been dissipated within four hours. Although toxic reactions may occur there have been no deaths or persistent injuries as the result of this material. Cumulative effects may be avoided if dosages are spaced four to six hours apart. Toxic symptoms will manifest themselves, if at all, within a half hour of the injection and are more disturbing than serious. Ephedrine is said to be an effective antidote for symptoms resulting from large doses of this drug. An indirect injury is mentioned that should be guarded against, merely that presence of BAL will disturb certain laboratory tests giving the patient a four plus sugar and a four plus acetone reaction in the urine. This might lead attendants into believing the patient was in diabetic acidosis.

There are three particular points to be noted in reference to the use of BAL. First is the necessity for prompt treatment, the recommended method being intramuscular injection. The sooner BAL is given, the more rapidly the heavy metal is withdrawn; the sooner the enzymes are reactivated, the greater the chance for survival of the cell. In the second place, it is important to maintain an excess of BAL consistently over a period of time. Third is the reminder that BAL is rapidly destroyed and rapidly excreted. In about three hours most of the therapeutic effect and most of the toxic action have been dissipated.

The author reports about 400 patients have been treated with BAL. In that group 61 were treated for bichloride poisoning, and in that series there have been only two deaths and both of them received their treatment late. Enough experience has been gained, therefore, to prove its worth and to give the physician, for the first time, an effective drug against poisoning of that variety. It is just now suggested that new preparations of BAL are being tested that may possibly change its effectiveness for that group of metals in which BAL presently has little value.

N. P. C. Conference

A few weeks ago a half dozen representatives from Kansas joined physicians and dentists from all other states to attend a meeting of the National Physicians Committee in Chicago. An imposing group of guest speakers including physicians, a dentist from Australia, nationally known public

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opinion experts, economists and writers was present to tell the story of the dangers of socialized medicine in the United States. It was an inspiring meeting that will long be remembered by those who attended. A composite summary of the various papers presented at this meeting is given below.

Where socialized medicine has been tried, from Bismarck to the present day, the same difficulties have regularly beset the government. Collusion between the patient and the physician and among physicians themselves fouls the program, invites class struggles and ultimately leaves everyone dissatisfied. The cost continually rises until today in France, by way of example, 25 per cent of the total wages are spent for socialized medicine. It is estimated that in the United States the cost may rise to 18 per cent of the total payroll and that if such action should be taken it will be a major factor in the bankruptcy of this nation.

Inefficiency and graft are invited by this program. An example was cited by an economist from Europe who went to a French physician for the necessary vaccination papers to enable him to enter the United States. The physician asked him in all seriousness whether he wanted the vaccinations or whether he merely wanted a certificate of vaccination.

An example of the insidious methods used by certain government officials to indoctrinate the people with the fact that socialized medicine is desirable is the recent National Health Assembly, called by Mr. Ewing, Federal Security Administrator. At this session there were 14 separate meetings designed to attract the attention of the people. All but Section 8, dealing with socialized medicine, was window dressing. Among the delegates to Section 8 were 15 invited members of the Physicians Forum, which organization probably cannot boast a membership of 500. The question of socialized medicine was wrangled during the entire period of this assembly, and in the end no conclusions could be reached. The general tenor of the session may be illustrated by the fact that four awards were given for outstanding services in the field of health. Four men were singled out for having contributed more than all others in the nation to the health of this country and they were Bojangles Robinson, Al Capp, Ralph Edwards and Walter Winchell.

It will be recalled that not long ago many government agencies such as the United States Public Health Service were placed under the Federal Security Administration. Henceforth all policies of any of these agencies must be cleared through the Federal Security Administrator before publicity can be given. Because of serious differences of opinion, Mr. Studebaker, long time head of the Department of Education, resigned. Portions of textbooks were read to illustrate the infiltration of the ideas of socialized medicine into the school books that are studied by junior high school students. For instance, in a text entitled, "We Are the Government," you may read this statement, "We are a democracy like Switzerland, Liberia and the U.S.S.R." Even arithmetic books have been re-written so that questions pertaining to apples have been changed to problems on hospital expenses, medical care, etc. From a ninth grade arithmetic text were cited examples of problems pertaining to the average income of a physician in contrast to the income of persons in other walks of life, of the high cost of medical care to the average citizen. Ninth graders in public schools of America today are computing the percentage of the working man's total income that goes into the pockets of physicians, using as a basis the statistics that the Federal Security Administration chooses to give them.

There are many examples of ways in which certain persons are planning toward this program. For instance, the 1949 national budget already has an item of 15 million dollars for medical administration and 150 million dollars for medical care, included as though the matter had already passed the Congress.

There was much said on Communism by a representative who is a member of the Committee on Un-American activities. This committee had sent to the F.B.I. 1,000 names that they felt warranted further investigation regarding loyalty. Then, although $17,000,000 had been appropriated for the prosecution of such cases, the President of the United States, by directive, prohibited the F.B.I. to take action on a single one.

This relates itself to the problem of federally controlled medical care. Pushed to its ultimate conclusion, a person who believes in this principle, who believes that everyone, the sick and the well, is entitled to medical care whether he needs it or not, should then also believe in a Communistic system of government. In this matter the government of Russia is far more honest than the government of other nations offering medical care. By accepting the entire plan, the question of graft is eliminated and, best of all, it is certainly the cheapest way in which such a program can be conducted.

A public relations expert expressed it in another way. The success of any program or product or industry lies within the successful carrying out of a formula in which X, the good deed or good product, is added to Y, good interpretation. It is on the second portion of this question that the medical profession has fallen down. Statists have an inferior product but far better advertising. The government talks about ends and ignores the means. These

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spokesmen stigmatize those who dwell on means as being reactionary. This is an old trick but still effective because the public is a very poor judge of means and needs only to be convinced that the end is what they want. The speaker cited a story in which an engineer came to the manufacturer to say, "If you will buy my engine from the blueprints, I can always give you a better engine than if you buy it made of iron."

Or, expressed yet another way, this point was made on a philosophical basis. Man is today at the turning point. The atom bomb is either the destruction of humanity or the beginning of its most constructive period. The atom bomb symbolizes today's challenge of the system by which man lives. Materialism is bankrupt and man has found nothing to replace this concept. Spiritual response is needed to replace materialistic challenges. Substituting familiar phrases for the above, materialism is Communism. Communism missed the boat. Their century is gone. If we can find an answer, ours is to come.

Mid-West Cancer Conference

The first annual Mid-West Cancer Conference will be held at the Broadview Hotel in Wichita, Kansas, on Thursday and Friday, January 20 and 21, 1949. The conference is jointly sponsored by the Kansas Medical Society and the Kansas Division of the American Cancer Society, and will be the only regional cancer conference in this area during the winter months.

There will be four general sessions beginning on Thursday morning and closing Friday afternoon. Guest speakers will include eight prominent physicians, each of whom will present two papers to the conference. A variety of subjects will be discussed including the major topics in this field. There will be two round table luncheons during which time discussion periods will be conducted with the guest speakers present to answer questions. On Thursday evening, January 20, there will be a banquet to which wives are invited. The Woman's Auxiliary to the Sedgwick County Medical Society is preparing a program of interest to women. It is suggested that physicians bring their wives because they will enjoy the activities that are planned throughout the session especially for them.

Dr. O. R. Clark, chairman of the Committee on Control of Cancer, announces that through the generosity of the Kansas Division of the American Cancer Society there will be no registration fee. Members attending the conference will pay only for the luncheons and for the banquet. It is expected that 300 physicians will avail themselves of this opportunity and be present for this first annual Mid-West Cancer Conference. All members of the Kansas Medical Society are invited and particularly physicians from nearby states. The meeting should entail no great difficulty with reference to hotel reservations because it was cleared through the Chamber of Commerce. The Broadview Hotel is reserving a block of rooms and will assign these in the order in which requests are received. Therefore, those who wish to stay in the hotel where the meeting is held may assure themselves of this convenience by writing now for their reservations. Among the larger hotels in Wichita are also the Allis and the Lassen.

Interim Meeting in St. Louis

Attention of the medical profession will be focused on the general practitioner at the second annual interim session of the American Medical Association in St. Louis, November 30 to December 3, 1948. Registrations and hotel reservations are now being accepted.

On the eve of the session, Saturday, November 27, the first national medical public relations conference will be held under sponsorship of the A.M.A. at the Statler Hotel in St. Louis. Then will follow the annual conference of secretaries and editors.

Planned to be especially valuable to the general practitioner, the interim session will offer lecture meetings conducted by medical leaders on conditions most often seen in daily practice. Subjects to be discussed include diabetes, heart disease, cancer, poliomyelitis, obstetrics, pediatrics, dermatology, genito-urinary conditions, hypertension, anesthesia, tuberculosis, jaundice, laboratory diagnosis, x-ray diagnosis, and physical medicine as applied to the treatment of arthritis. Diagnosis and treatment will be stressed in a wide variety of clinical conferences, correlated with the lecture meetings. Leading practitioners from all sections of the nation will conduct these conferences.

Evening programs will feature distinguished speakers, the award of the general practitioner medal, and entertainment by stars of the amusement world.

A scientific exhibit with nearly 100 displays will show clinical and pathological material on subjects dealt with in the clinical conferences. Approximately 115 leading firms will display technical exhibits including new products, equipment, and medical publications. All exhibits will be open from Tuesday at 8:30 a.m. to Friday noon, November 30 to December 3.

Papers will be read at the general scientific meetings in the St. Louis Opera House from 9:00 to 10:00 a.m. and from 2:00 to 3:00 p.m. each day. At least six demonstration units are planned for each half day from 10:30 a.m. until noon and from 3:30 p.m. until 5:00 p.m. Small rooms will be provided for these demonstrations and provision is being made so that physicians can take notes.

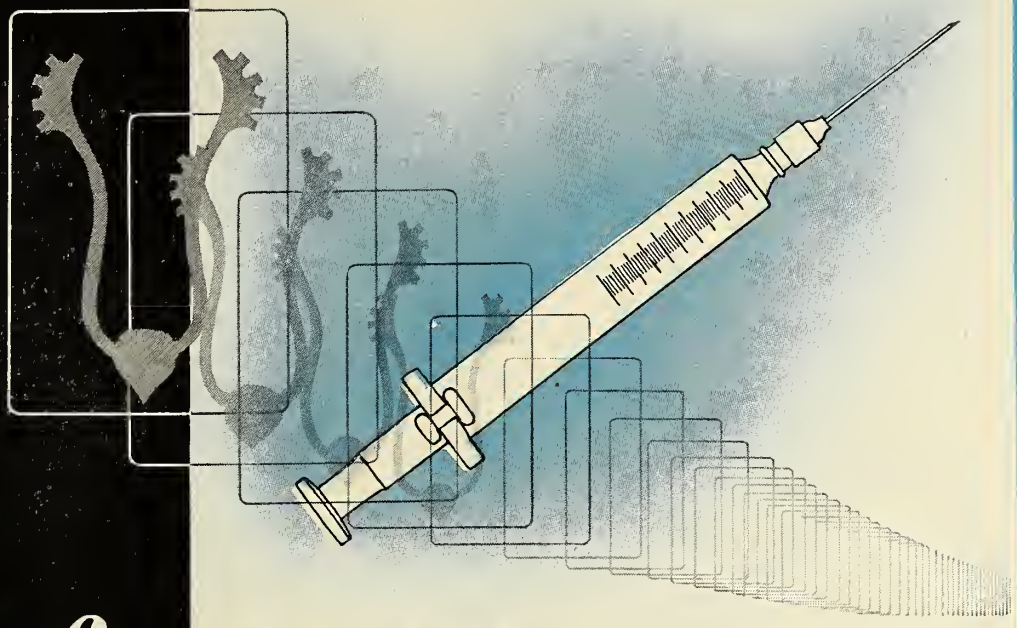
Reservations must be cleared through the Chairman, Subcommittee on Hotels, American Medical Association, Hotel Reservation Bureau, 1420 Syndicate Trust Building, St. Louis 1, Missouri, and must be received before November 9, 1948.

Omaha Clinical Society to Meet

The 16th annual assembly of the Omaha Mid-West Clinical Society will be held at Hotel Paxton, Omaha, Nebraska, October 25-29, inclusive. The list of guest speakers will include specialists from all parts of the United States and one from Canada, and there will be round table discussions and social events.

A clinic has been arranged at one of the hospitals for the morning of October 27, and the program will be televised direct to the headquarters hotel, where large screens will be used in three rooms so that all may have an opportunity to view the showing. The program on October 29 will include a clinicopathologic conference and a panel discussion on "The Doctor in Court," with six physicians and attorneys taking part.

Programs may be secured from the Omaha Mid-West Clinical Society, 1031 Medical Arts Building, Omaha, Nebraska.



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EXECUTIVE OFFICE

Material for this column is taken from articles coming to the attention of the Executive Office. They may concern controversial issues and will not necessarily reflect the editorial opinion of the Journal. Articles republished or summarized here are presented because it is believed they will be of interest to the medical profession in Kansas.

The Nation's Health

This is a summary of the report to the President by Oscar R. Ewing, Federal Security Administrator, which was made public on September 2, 1948. The complete report covers 186 pages, so obviously only a few sections can be included in this summary. They are, however, characteristic. In general it is almost exactly what might be expected, first stating that the nation's health is poor and then accepting that statement to prove the necessity for change; second, detailing the proposed alterations, and third, arguing advancements of the new system.

Mr. Ewing reports to the President that he had the assistance of literally hundreds of people, especially those attending the National Health Assembly in May, but "there was no agreement on the question of national health insurance and my recommendation of such a program must be clearly understood as in no way expressing the views of the assembly, which took no position one way or the other on this question. . . "

"The arguments that have been made against national health insurance have been carefully weighed and I still find myself compelled to recommend it. After all, we are dealing with human lives and human suffering and anguish. Every year over 300,000 people die whom we have the knowledge and skills to save. This stark fact proves that the present system is inadequate. By and large, only the well-to-do and, to a certain extent, charity patients get satisfactory medical care. The in-between groups—other than the fairly small portion who are covered by voluntary insurance plans—are the ones desperately in need of better care. I see no possible way to provide funds needed for adequate medical services to these in-between groups, who constitute the vast majority of our people, except through a system of national health insurance."

In another section he says that 325,000 people die whom we have the knowledge and skills to save. Under an adequate national health program it would be possible to save 120,000 out of 170,000 who die annually from communicable diseases. We could prevent 115,000 out of 600,000 deaths from cancer; 40,000 out of 100,000 accidental deaths; 30,000 out of 110,000 infant and maternal deaths, and 20,000 out of 400,000 deaths from other causes. "These are some of the lives we could save if we were able today to assure every person in the country that he would be able to receive the health and medical services that he needs."

Mr. Ewing devotes a chapter to each specific portion of the program. The first of these is manpower, which he describes as insufficient and poorly distributed. This will be corrected by sharply increasing the training programs by 40 or 50 per cent so that in 1960 there should be 37,000 more physicians than today. Hospitals are to be increased by 50 per cent. Research and many other programs are included. He proposes to do all of this through a system of insurance covering the entire population because today millions of people are unable to meet the cost of health services. At this point he feels "compelled to urge, as strongly as I know how, that the Congress enact, as President Truman has recommended, a system of government prepayment health insurance. . ."

The cost also receives consideration. He estimates that it would come to only 1.6 per cent of the total personal income and that this would raise some $4,107,000 annually, of which a little over half would be federal and the rest state and local. He believes that a three per cent payroll deduction tax, equally distributed between employer and employee, would cover the cost of the medical part of this program and that it should never go beyond four per cent. Hidden away in the above section of the report is this revealing sentence. **"The federal government might use general revenues to supplement the contributions, as necessary, in the amounts equivalent to a fixed maximum percentage of contributions."**

Pages 105 to 114 represent a chapter entitled "Pros and Cons of the Plan." First he disposes of the argument of socialization by the statement that it is not socialization, nor is compulsion a factor because any physician may stay out of the plan who chooses not to cooperate. The argument on the cost contains a statement that government control will actually prove less costly than the operating expenses of voluntary insurance programs. "I can find no valid disadvantage to the plan on the question of cost." Free choice of physician would be improved under the proposed system because then any patient could select any physician. Today an insufficient supply of doctors and the patient's inability to pay limit his choice. The argument that the proposed plan would encourage malingering is "greatly exaggerated and can be controlled either by organized action on the part of the physicians themselves or by administrative procedures that have been tested by experience or by a combination of both professional and administrative action. . . ."

"It is pure poppycock and deliberately misleading to say that government health insurance would make medicine a 'political football,' that doctors would be victims of the spoils system, that they would be subject to orders of untrained lay clerks, that doctors could expect no advancement because of professional merit but only through political pull, etc., etc."

The author states that he has examined this question carefully and in an unbiased manner. The arguments, however, are so conclusive that even though the plan is not 100 per cent perfect there is nothing else that can even approach this as the present solution. "The compelling argument, however, that drives me to an advocacy of national health insurance is that I see no other possible way of bringing adequate medical service to fully half of the American people. It would, obviously, be nice if we could find some other way that would arouse less opposition from many members of the medical profession. But I see none. And seeing none, I am not willing to abandon my advocacy of a program that I believe will bring more adequate medical services to fully 70,000,000 people just because some members of the medical profession prefer to maintain the status quo. It seems to me impossible to argue fairly for the status quo in the face of the fact that there are more than 300,000 deaths each year that we have the knowledge and skills to prevent.

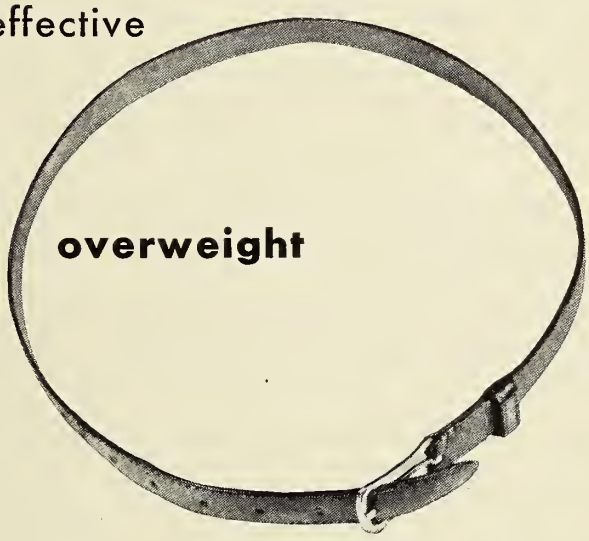
"I, therefore, recommend that the President continue to urge upon the Congress the earliest possible enactment of government health insurance in some such terms as outlined in this report."





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MEMBERS

Dr. William E. Grove, son of Dr. John L. Grove and grandson of the late Dr. J. T. Axtell, founder of the Axtell Clinic and Hospital at Newton, has returned to Kansas and will specialize in surgery at the Axtell Clinic. He recently completed a fellowship in surgery at the Lahey Clinic, Boston.

* * *

Dr. Thomas Hill, surgeon at the Santa Fe Hospital, Topeka, during the past year, has moved to Arkansas City to join the staff of the Meek-Stensaas Clinic.

* * *

Dr. J. J. Hovorka, Emporia, announces that Dr. Carter B. Sigel is now associated with him in practice. Dr. Sigel is a graduate of the University of Kansas School of Medicine and served his internship during the past year at Emanuel Hospital, Portland, Oregon.

* * *

Dr. W. T. Grove, who has been practicing in Greenwood County since 1893, recently announced his retirement from active practice. He will continue as acting county health officer.

* * *

Dr. Meyer Silvert, who recently completed his work at the Institute of Psychological Medicine, Winter V. A. Hospital, Topeka, has gone to New York to practice at the V. A. Mental Hygiene Clinic.

* * *

Dr. Orville S. Walters, McPherson, returned recently from Ann Arbor, Michigan, where he attended a course in electrocardiographic diagnosis given by Dr. Frank Wilson.

* * *

Dr. M. E. Pusitz, Topeka, presented a paper, "Treatment of Cerebral Palsy," at a recent meeting of the American Physiotherapy Association.

* * *

Dr. Thomas R. Hood, former health officer for Cowley County, has entered Harvard University to study for his master's degree in public health. Dr. Donald E. Upp, Winfield, has been appointed to the health officer position.

* * *

Dr. Robert Jordan, formerly a member of the student health service at the University of Kansas, has gone to Rochester, Minnesota, to take a residency in medicine. Dr. Maurice Gross is replacing Dr. Jordan at the university.

* * *

Dr. Paul Davis, superintendent of the Topeka State Hospital and his assistant, Dr. C. B. Stephens, resigned their posts at the hospital September 12. Dr. William F. Blair, who formerly was on the staff at the hospital and more recently has been at the State Hospital for Epileptics at Parsons, is now acting superintendent of the Topeka institution.

* * *

Dr. Frederick O. Epp, Valley Falls, plans to open an office in Augusta this month. He will engage in private practice and will also be plant physician for the Socony-Vacuum Company.

* * *

Dr. Paul H. Lorhan, Dr. Wray Enders and Dr. Merritt H. Kimball, from the Department of Anesthesiology at the University of Kansas Medical Center, presented an exhibit on modern methods of anesthesia at the meeting of the Kansas City Southwest Clinical Society early this month.

Dr. L. V. Turgeon, Topeka, announces that Dr. Darrell Weber is now associated with him in practice.

* * *

Dr. Franklin D. Murphy, dean of the University of Kansas School of Medicine, Dr. J. H. A. Peck of St. Francis, and Dr. Karl A. Menninger of Topeka were appointed by Governor Carlson to a five-member advisory committee which has been named to study conditions at state hospitals in Kansas. The lay members of the committee are Senator Paul R. Wunsch of Kingman and Representative Paul Shanahan of Salina.

COUNTY SOCIETIES

A meeting of the Finney County Medical Society was held at St. Catherine's Hospital, Garden City, September 20. The following officers were elected: president, Dr. O. W. Miner; vice president, Dr. H. Preston Palmer; secretary-treasurer, Dr. J. O. Austin.

* * *

The Linn County Society met September 21 at the office of Dr. L. D. Mills in Mound City. The society voted to conduct a local tuberculosis clinic and planned vaccinations of school children.

* * *

The Harvey County Society held a dinner meeting at Newton September 13 with 30 members attending. Dr. A. S. Hawkey read a paper, "Birth Injuries," and Dr. C. R. Schmidt discussed "Liver Functions." The society voted to cooperate in the presentation of a series of six refresher courses in Newton.

* * *

Dr. R. H. Bayley, professor of internal medicine and chief of cardiovascular service at the University of Oklahoma Hospital, was guest speaker at a meeting of the Shawnee County Society on September 7. His subject was "Rheumatic Heart Diseases."

* * *

A quarterly meeting of the Central Kansas Medical Society was held at St. Anthony's Hospital, Hays, September 30. Dr. O. W. Davidson, president of the Kansas Medical Society, was principal speaker. A dinner at the Lamer Hotel followed the program.

Army Extends Training Program Limit

The Army Medical Corps has extended until November 1 its time limit for medical school graduates to apply for commissions under the civilian resident and the civilian intern training program. Officers who participate are expected to serve a year of active duty for each year of training they receive.

Under the program, selected individuals serve internships and residencies in civilian hospitals of their choice, interns as first lieutenants of the Reserve Corps and residents as first lieutenants in the Regular Army Medical Corps. Both receive full pay and allowances, plus $100 a month professional volunteer bonus.

The training program was instituted by Major General Raymond W. Bliss, surgeon general, with the advice and help of the American Medical Association, the Society of Consultants of World War II and other medical organizations.

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THE KANSAS PRESS LOOKS AT MEDICINE

A Justified Kick

Branding the veterans administration hospital program as "subjected to political pressure and special interests," the American Hospital association during its fiftieth convention declared that the VA hospital system is "too large for efficient management." Hospitals are located in inconvenient and expensive areas, where adequate personnel is not available, they further charged, while patients are kept in hospitals three times as long as would be required to effect the same cure in civilian institutions. Finally the association president protested against the VA policy of "building its hospitals wherever it pleases without regard to state plans."

All of which is interesting because of the experience Salina had with the various agencies which controlled the excellent, air conditioned, well equipped hospital established at Camp Phillips during the war. To insure that new hospitals would be erected with the money made available by a gullible congress, equipment was torn out and shipped away by the army without giving any other agency a chance to ask for the facilities that were ready and needed for the care of the injured who were streaming home after VE and VJ had been achieved.

Then the hospital was tossed and kicked between the army, the navy and the Veterans administration. Eventually the plot succeeded, and a seven million dollar institution—if the figures from memory are correct—was dismantled.

That, of course, was a total loss to the taxpayers, but is not all of the sorrowful story, nor the worst of it. To replace the hospitals that had been destroyed, here and elsewhere, new buildings were constructed, and the public pays these bills, too.

Here again is a practical demonstration of what may be expected if the government takes over business. Nor should it be overlooked that this is about what will happen if socialized medicine, hospitals, and all the other socialistic and communistic proposals which are being made finally are foisted upon the people.—*Salina Journal, September 21, 1948.*

* * *

The Old Family Doctor

The plan to put the medical profession of the country under some Washington bureau seems to be side-tracked, at least temporarily, but even so, there are still some socialist-minded politicians who think they can ladle money out of the United States treasury for campaign purposes. Anyhow, if we can believe all the buncombe, baloney and bull put out over the radio about the various nostrums which it is claimed will cure everything from the pip to a fear of falling off a high building, we don't need any bureau to tell us what to do in regard to our health. All you have to do is to listen, diagnose your own troubles, and then take the dope which scientific survey shows that three out of every four radio announcers recommend.

In some respects there is a similarity between the radio cures and the plan to socialize medicine. One of them is just about as reliable as the other and both are laboring under the delusion that the old family doctor is out-moded and no longer needed, and they are asking us to do away with him.

Give up the old family doctor? Never. Not while there are family ailments from grandpa's rheumatism to baby's teething troubles which he knows as intimately as a watchmaker knows the insides of a watch. Not as long as there lives a sympathetic old friend of the family whose familiarity with the physical and mental state of each member tells him exactly why the temperature is high, the tongue coated or the pulse erratic. Not while there can be found a person who can bully father into staying away from the office or out of the fields a few days, or who can persuade the youngsters to swallow it after the family have abandoned the effort. Are we to give up the friend of the family who cheers us up and leaves us smiling and confident, and to take in his place some coldly calculating man who diagnoses our troubles according to rules laid down by a Washington bureau and scribbles in such cases made and provided with an order to go to the hospital to take it? Why, the old family doctor is one of the last agreeable phases of sickness. Give him up for some political appointee? We should say not.—*F.J.C., Kingman Journal March 19, 1948.*

* * *

Family Doctor Returns

The American Academy of General Practice, a new medical organization, has established national headquarters in Kansas City, with founding members in all states and with 20 state chapters functioning. The movement started last June under auspices of the American Medical Association. While the Academy is a distinct and separate organization it will have the help of the parent association in formulating policies.

Purpose of the organization is to foster and encourage work of the family physician in behalf of the nation's health. In contrast with the recent trend towards specialists the more than 100,000 family doctors in the nation will be given recognition, with equal rights and consideration at hospitals. In many cities hospitals would admit only those patients who were sent by specialists, or those needing surgery. A family physician who had spent the night at the bedside of a pneumonia patient often was refused a hospital bed the next morning.

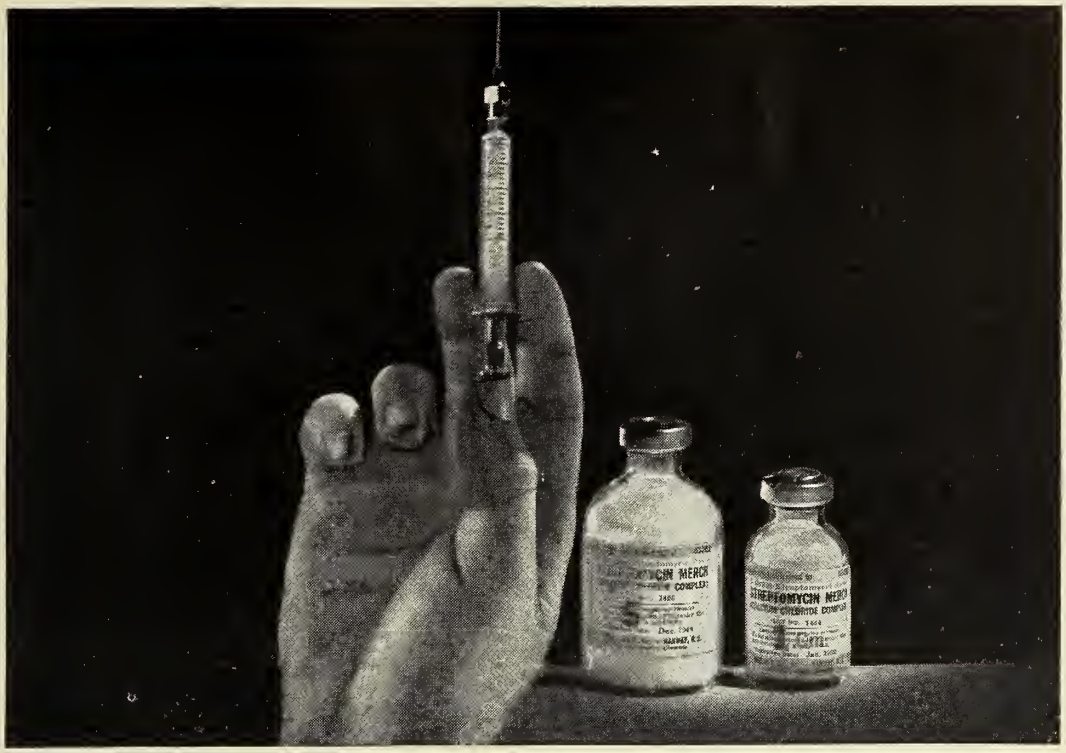
Aroused by charges that families with small incomes were being denied proper medical care because of a lack of treatment in the home, which has brought the threat of social medicine, the family doctor is to be restored to his rightful place in the nation under the encouragement and sponsorship of the Academy. Nothing could be of more benefit to the American public, and without in any way detracting from the need for specialists in the various lines.—*Wichita Eagle, March 25, 1948.*

* * *

Socialized Medicine

On July 5 of this year the socialized medicine law is scheduled to go into effect in England. Its operation and effects will be watched with interest by this country. There are indications—plenty of them—that an all-out effort along similar lines may be made in our own country. The doctors in England are said to have registered their votes against the inauguration of the measure, last month by 25,340 to 4,084, but the law will go into effect just the same. Now the doctors in that country are talking a strike against the measure.

It seems well that the doctors in our own country do take heed. We don't pretend to know what the answer is, or just what could be done or can be done, to stave it off. Some think that the regulations of the National Medical Association in this country are too drastic—some think that the required period of schooling and preparation is too long. Others think that too many are getting into specialized practice, thus leaving too few to properly handle



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the general practice needs. Whatever the condition—most certainly this country does not want socialized medicine.—*Oswego Independent, March 26, 1948.*

* * *

Kansas Needs Physicians

Sooner or later Kansans will need to face the fact that insufficient numbers of physicians are being turned out each year from the state's medical school. Eighty per year is, according to Dr. J. H. A. Peck, of St. Francis, President-elect of the Kansas Medical Society, too few when we are losing more than 80 practicing physicians every year through death, retirement or transfer elsewhere.

With this man's statistics as authority, we cite the 31 western counties of Kansas in which there are 90 doctors. Eighteen are past 65 years of age and 35 are over 55.

In the state as a whole, there are only one-half as many physicians as there were 20 years ago.

With between 70 and 80 counties of Kansas appealing to the State Medical Society for more doctors nothing is being done about enlarging the facilities of the state's Medical school. Plenty of young men and women of the state and elsewhere desire to take the course but cannot be admitted because of lack of facilities, for there were over 300 applicants this year.

Kansas' earmarked funds for the medical school is less than that of near-by states. Iowa's is said to be three or four times larger than Kansas' appropriation. Colorado has appropriations two to three times as large and Oklahoma has embarked on a seven million dollar building program for its medical center. Kansas' budget is $600,000, which should have a boost for the present facilities.

Possibly some of the money now on deposit with the state treasury, an all-time high, should be spent for this purpose instead of refunding it to ad valorem tax payers. *Baldwin Ledger, September 9, 1948.*

Advisory Heart Council Appointed

The appointment of 12 members of the National Advisory Heart Council, provided for in the National Heart Act of June 16, 1948, was announced last month by Surgeon General Leonard A. Scheele of the United States Public Health Service, who named the leaders in scientific research, medicine, education and public affairs. Terms of the 12 will vary from one to four years.

Appointed to the council were the following physicians: Dr. C. A. Elvehjem, dean of graduate schools, University of Wisconsin and member of the Food and Nutrition Board of the National Research Council; Dr. Tinsley Harrison, dean of faculty and professor of internal medicine, Southwestern Medical College, and president of the American Heart Association; Dr. T. Duckett Jones of New York City, chairman of executive committee of the American Council on Rheumatic Fever; Dr. Irvine H. Page of Cleveland, past chairman of vascular section of the American Heart Association; Dr. Burrell O. Raulston, dean of the medical school, University of Southern California; Dr. Paul D. White, physician and chief of cardiac clinics and laboratories, Massachusetts General Hospital, and chairman of the committee on cardiovascular diseases of the National Research Council.

Others named were: James S. Adams of New York City, director of the American Cancer Society; Maurice Goldblatt of Chicago, member of the board of directors of the American Heart Association; Mrs. Albert D. Lasker of New York City, co-founder of the Albert and Mary Lasker Foundation for education and medical research; E. B. McNaughton of Portland, Oregon, treasurer and trustee of Good Samaritan Hospital, Portland; Ernst Mahler of Neenah, Wisconsin, trustee of Lawrence College; Albert J. Wolf of New Orleans, president of the board of trustees of Touro Infirmary, New Orleans.

Dr. White will serve as executive director of the council. Ex-officio members of the group are the Surgeons General of the Public Health Service, the Army and the Navy, and the chief medical officer of the Veterans Administration.

The council will serve as the official advisory body to the Public Health Service in administering the law. Its duties are to advise in the development of research programs designed to help in the attack on cardiovascular diseases, to review and make recommendations on applications from institutions or individuals for research and training grants, to make a world-wide collection of information on heart diseases, and to advise on the whole program of the National Heart Institute.

DEATH NOTICES

HOWARD NELSON MOSES, M.D.

Dr. H. N. Moses, 74, a member of the Saline County Medical Society, died September 10. A graduate of Rush Medical College in 1899, Dr. Moses began practice in Salina in 1900, specializing in pathology. He was instrumental in founding the first hospital in Salina and was an instructor at the school of nursing at the present Asbury Hospital.

* * *

LESLIE LEVERICH, M.D.

Dr. Leslie Leverich, 82, an honorary member of the Wyandotte County Society and a past president of that group, died September 14 at his home in Dallas, Texas, where he moved when he retired in 1944. He was graduated from the University Medical College of Kansas City in 1897 and began practice in Kansas in 1901, specializing in obstetrics and gynecology. He was a fellow of the American College of Surgeons and a member of the Central Association of Obstetricians and Gynecologists.

* * *

CYRIL EVAN SHEPPARD, M.D.

Dr. Cyril E. Sheppard, 63, a practicing physician in Larned for 34 years, died at his home there September 14. A graduate of the University of Kansas School of Medicine in 1914, Dr. Sheppard entered practice in Larned in association with Dr. J. A. Dillon, specializing in surgery. He was active in civic affairs and had served as mayor and city councilman in Larned. During World War I he served in the Army Medical Corps.

* * *

OSCAR FRANCIS MARCOTTE, M.D.

Dr. O. F. Marcotte, 74, a member of the Shawnee County Society, died at his home in Topeka September 23. He was graduated from the College of Physicians and Surgeons in Kansas City in 1901 and practiced in Osage City before opening an office in Topeka. During World War I he served as coroner of Shawnee County and since that time had been in private practice.

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OCTOBER 25, 26, 27, 28, 1948

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Katherine Dodd, M.D., PEDIATRICS, University of Cincinnati School of Medicine, Cincinnati, Ohio.
John G. Downing, M.D., DERMATOLOGY, Boston University School of Medicine, Tufts College Medical School, Boston, Massachusetts.
Lawrence S. Follis, M.D., SURGERY, Wayne University College of Medicine, Detroit, Michigan.
Arthur B. Hunt, M.D., OBSTETRICS, University of Minnesota Graduate School, Mayo Foundation, Rochester, Minnesota.
R. H. Kampmeier, M.D., MEDICINE, Vanderbilt University School of Medicine, Nashville, Tennessee.
Frank R. Lock, M.D., GYNECOLOGY, Bowman Gray School of Medicine of Wake Forrest College, Winston-Salem, North Carolina.
William P. Longmire, M.D., SURGERY, Johns Hopkins University School of Medicine, Baltimore, Maryland.
Tracy O. Powell, M.D., UROLOGY, College of Medical Evangelists, Los Angeles, California.
David G. Pugh, M.D., ROENTGENOLOGY, University of Minnesota, Graduate School, Mayo Foundation, Rochester, Minnesota.
Harold G. Scheie, M.D., OPHTHALMOLOGY, University of Pennsylvania School of Medicine and Graduate School, Philadelphia, Pennsylvania.
Allen F. Voshell, M.D., ORTHOPEDICS, University of Maryland School of Medicine, Baltimore, Maryland.
Theodore E. Walsh, M.D., OTOLARYNGOLOGY, Washington University School of Medicine, St. Louis, Missouri.
Owen H. Wangensteen, M.D., SURGERY, University of Minnesota School of Medicine, Minneapolis, Minnesota.
Theodore A. Watters, M.D., NEUROLOGY, Consultant Neurologist, New Orleans, Louisiana.
John B. Youmans, M.D., MEDICINE, University of Illinois College of Medicine, Chicago, Illinois.

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HAROLD H. JONES, JR., M.D., Section on Internal Medicine, Snyder-Jones Clinic, Winfield.
WALTER M. SOLOMON, M.D., Senior Clinical Instructor in Medicine, Western Reserve University, Cleveland, Ohio.
MISS SIGNE BRUNNSTROM, R. P. T., Research Associate, New York University College of Engineering, University Heights, New York.
MISS WILMA WEST, O. T. R., New York, N. Y.; Executive Director, American Occupational Therapy Association.

The course will treat the pathology, the physiologic aspects, the treatment medically and surgically, and the role of physical medicine in such diseases as the Arthritic States, Peripheral Vascular Diseases, the Neurologic States—Hemiplegia and Multiple Sclerosis—Poliomyelitis, Peripheral Nerve Injuries, etc.

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Other subjects considered will include the treatment of skin lesions by X-ray and by surgery; the chemotherapy of the leukemias, malignant lymphomas and other neoplastic diseases; diabetes; newer methods in the treatment of asthma; the use of antihistaminic drugs in upper respiratory diseases; and how the family physician can give psychotherapy.

New Blue Cross-Blue Shield Proposals

Revised proposals for the establishment of a Blue Cross-Blue Shield Association and a Blue Cross-Blue Shield Health Service, Inc., were submitted to all plans on September 10, having been approved by both organizations at their meetings in Chicago in August. Action on these proposals is scheduled for October 25-28 when annual meetings will be held at French Lick Springs, Indiana.

The Blue Cross-Blue Shield Association does not constitute a proposed merger of the two movements, but a corporate device whereby members of the two commissions would be incorporated as an association for administering certain delegated functions of mutual concern to both groups. The creation of a national enrollment agency is among the chief purposes for which the association would be formed.

The Blue Cross-Blue Shield Health Service would be organized for the purpose of assisting plans with enrollment of national accounts, identified as those groups employed by a firm which is not confined to an area served by any one plan. Assistance is specified as (1) soliciting such accounts through the home office of a nationally operated firm in behalf of the plans, (2) issuing excess coverage certificates for additional benefits, desired by a national account but not provided by a local plan, and (3) providing coverage for employees residing in areas not served by a plan at present.

Red Cross Conference at Stockholm

Steps toward peace and the humanization of warfare were taken at the 17th International Red Cross conference held in Stockholm, Sweden, in August, Basil O'Connor, president of the American Red Cross, reported on his return to New York. The organization is a federation of 66 national organizations with a membership of more than 100,000,000.

"Some of the most important developments in the 86 years of Red Cross history took place at the Stockholm conference," Mr. O'Connor said. "One new treaty—that affording protection to civilians in war time—and revisions of three others were proposed and approved. In addition, many new resolutions were passed, in particular one calling upon nations to outlaw the atomic bomb."

That resolution was directed towards the use of "blind" arms, those which cannot be aimed with precision or which devastate large areas indiscriminately, entailing the destruction of persons and human values. The proposed new treaty will be laid before a diplomatic conference of the world's nations which will be called together by Switzerland, traditional home of neutrality, and which will approve or reject the proposals as matters of international law.

In the proposed revision of the Geneva treaty for the relief of the wounded and sick on the battlefield, the chief change was in the status of military medical personnel. Under the present convention doctors have immunity when captured and are supposed to be returned home at once. Under the new convention, medical personnel when captured may be detained by the captor in sufficient numbers to treat the sick and wounded of their own army who have been taken prisoner.

The American Red Cross and the United States government achieved their goals in food rationing for prisoners of war—that the capturing power provide food in sufficient quantity, quality and variety to keep prisoners in good health and to prevent loss of weight and the development of nutritional deficiencies. Belligerents would be required also to facilitate shipment of relief consignments to the prisoners.

The next International Red Cross conference will be held in the United States in 1952, but the location has not yet been selected.

Doctors' Earnings at Record High

Total gross income of physicians in this country in 1947 was about two and one-half billion dollars, according to a survey made recently by William Alan Richardson, editor of Medical Economics. That figure represents an average gross income of $17,476.

Average net incomes of private physicians have almost tripled from a depression low in 1935 of $3,792 to a new postwar high of $9,884, the survey showed. Medial gross was given as $14,500 and median net as $8,744.

Physicians in 1947 were in the top three per cent national income bracket. Net income of physicians rose 14 per cent from 1943 to 1947, while incomes of all gainfully employed persons increased 32 per cent during the same period.

The highest gross reported by any physician, a specialist in proctology, was $180,000, with a net of $86,000. Of all active private physicians, 2.8 per cent grossed $50,000 or more and 0.1 per cent grossed $100,000 or more.

In presenting details on the practice of seven physicians reporting gross incomes from practice of more than $100,000, the survey stated that the proctologist reporting $180,000 practices in a middle east city of 2,000,000 population, employs two other physicians and seven secretaries and works 18 hours daily while seeing approximately 60 patients. A practitioner of internal medicine in New England grosses $167,350, seeing 43 patients during a nine-hour day. The remaining five of the top seven, with gross incomes from $100,000 to $150,000, included an obstetrician-gynecologist, a general practitioner, another internist and two surgeons. All reported from 10 to 15 hours of daily practice and had been engaged in their professions from 10 to 30 years.

ANNOUNCEMENTS

October 4-7—26th Annual Fall Clinical Conference, Kansas City Southwest Clinical Society, Kansas City, Missouri.

Oct. 18-22—34th Clinical Congress, American College of Surgeons, Biltmore Hotel, Los Angeles, California.

October 25-29—16th Annual Assembly, Omaha Mid-West Clinical Society, Hotel Paxton, Omaha, Nebraska.

November 27—First National Medical Public Relations Conference, Statler Hotel, St. Louis, Missouri.

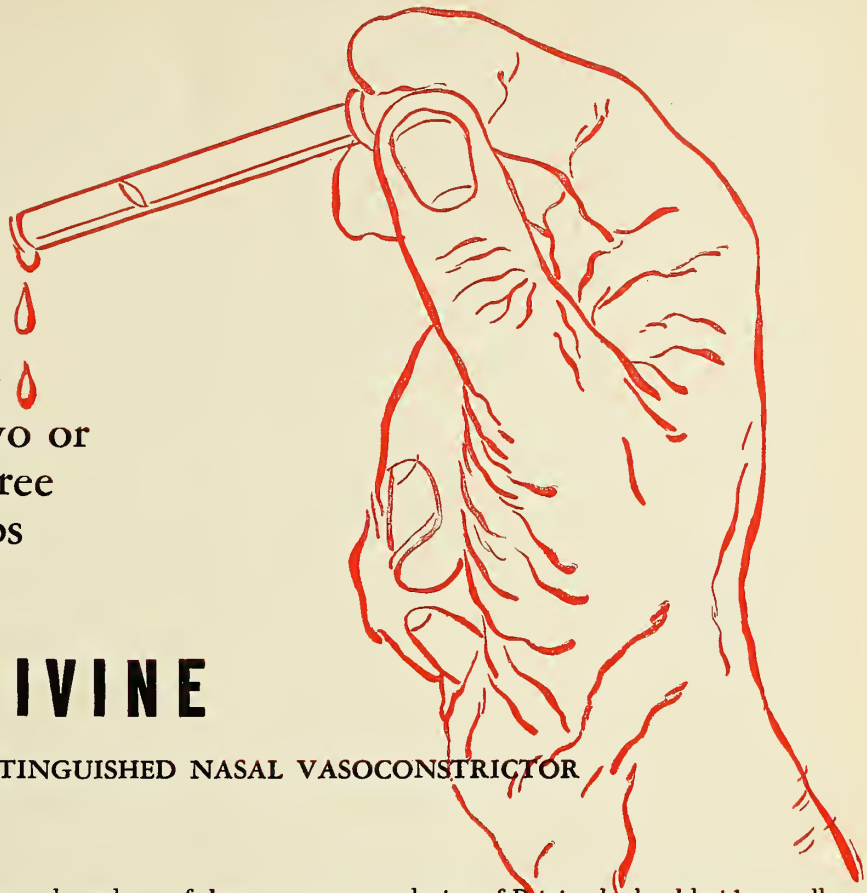
November 30-December 3—Second Annual Interim Session, American Medical Association, St. Louis, Missouri.

January 20-21—First Annual Mid-West Cancer Conference, Broadview Hotel, Wichita, Kansas. Joint sponsorship of Kansas Medical Society and Kansas Division of American Cancer Society.

March 28-April 1—30th Annual Session, American College of Physicians, New York, New York.

MAY 9-12—90th ANNUAL SESSION, KANSAS MEDICAL SOCIETY, TOPEKA, KANSAS.

June 6-10—Annual Meeting American Medical Association, Atlantic City, New Jersey.



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Diamond Jubilee of Nursing

Celebrations to commemorate the Diamond Jubilee of Nursing will be held throughout the country from November 14 to 20 under the sponsorship of the American Nurses' Association, and will be highlighted by a Linda Richards banquet in New York City on November 16. This year marks the 75th anniversary of professional nursing in the United States and of Miss Richards' graduation from nursing school.

The A.N.A., with a membership of more than 162,000 registered professional nurses, has planned the celebrations "to focus public attention on the extension and improvement of nursing service to all through the improvement of schools of nursing, economic security for all nurses, adequate licensure laws and more effective counseling and placement of both prospective students and graduate nurses," according to Miss Pearl McIver, A.N.A. president.

"It is hoped that the jubilee will also effectuate the recruitment of the 40,000 additional students for approved schools of nursing desperately needed, if professional nursing needs are to be met," Miss McIver said. In each locality state and district nurses' associations will sponsor luncheons, dinners and exhibits depicting the origin and growth of schooled and professional nursing in America.

Up to the time of the Civil War there were few nurses in this country. Many of them were unskilled and unprofessional. Then, in 1873, the New England Hospital for Women and Children in Boston graduated Linda Richards as America's first nurse specifically educated for a professional career. That year, too, saw the establishment of the first three American schools of nursing based on the Florence Nightingale system.

After working as superintendent of nurses in various hospitals, Linda Richards founded 11 schools of nursing in the United States and one in Japan, where she taught for five years. Among her many pioneering contributions to the profession was the organization and direction of the earliest schools of nursing in hospitals for the mentally ill.

Grants to Menninger Foundation

Funds to expand training opportunities and to finance two research projects were recently allocated to the Menninger Foundation, Topeka, by the United States Public Health Service under provision of the National Mental Health Act.

The specific grants are: $20,000 to the Institute of Psychological Medicine to carry on and expand the operation of administrative offices; $11,664 to develop the training program in clinical psychology; $6,480 to develop a program to give psychiatric training to graduate nurses; $6,000 to improve the training program in psychiatric social work; $25,250 to continue an infant study project; $7,100 for a perception project designed to yield diagnostic techniques that will help physicians make more precise diagnosis of illness.

Funds for Cerebral Palsy Film

Funds totaling $25,000 for production of an educational film on cerebral palsy will be raised by the National Association of American Business Clubs within the next four months, F. H. Bachman, Champaign, Illinois, president of the organization, announced last month.

The film, which will be produced by the National Society for Crippled Children and Adults, will be available to all interested persons and groups. The society is the only national agency operating a program of treatment and rehabilitation of the country's one-half million cerebral palsied persons.

The American Business Clubs adopted cerebral palsy as a national project in 1947, with plans for a popular movie to tell the story of the treatment and training required to rehabilitate cerebral palsied persons, who suffer from damage to centers of the brain governing muscular control. Each club will have a goal to meet and each will devise its own methods of raising money.

The organization feels that the film will stimulate further interest in developing needed services for cerebral palsied persons throughout the country. The society now operating to help those victims is a federation of more than 2,000 state and local units in the United States, Alaska and Hawaii, formed to serve the nation's 23,000,000 handicapped persons.

Executive Secretary Dies

Mr. Ralph W. Callahan, executive secretary of the Shawnee County Medical Society during the past six years, died September 6 after an illness of several months. Mr. Ray Selbach of Topeka, who formerly had been employed by the county welfare department, has been named to the medical society office.

Army Hospital Beds for Veterans

Allocation of 3,035 beds in Army hospitals throughout the United States for the treatment of veterans was announced last month by the Army, in response to a request made by the Veterans Administration. Beds set aside for veterans may be used partly for treatment of chronic disabilities, with 325 reserved specifically for tuberculosis cases at Fitzsimmons General Hospital, Denver. None of the beds allocated will be used for patients who could be treated in domiciles.

Medical Art on Exhibit

Photographic color transparencies of original anatomical studies by the noted medical artist, Leon Schlossberg, of Johns Hopkins University have been prepared for exhibit before medical schools and societies by Winthrop-Stearns, Inc., pharmaceutical manufacturer. They were first shown at the A.M.A. meeting in Chicago last summer.

Eight studies are in the collection, kidney and renal pelvis and calicies; head with paranasal cavities; section through woman at term; cardiovascular failure and edema; normal heart with valves; brain, including visualization of the thalamus, hypothalamus, and medulla oblongata; normal bone marrow; and pathogenesis of hypertension.

Urology Award

The American Urological Association announces its annual award of $1,000 for essays on the result of clinical or laboratory research in urology. Competition is limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals.

The first prize essay, for which $500 will be awarded, will appear on the program of the American Urological Association meeting to be held in Los Angeles, May 16-19, 1949. A second prize of $300 and a third prize of $200 will also be given.

Particulars of the competition may be secured from Dr. Thomas D. Moore, 899 Madison Avenue, Memphis 3, Tennessee.

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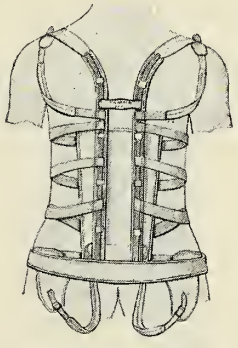
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ABSTRACTS

Fibrosis of the Pancreas

The Treatment of Fibrosis of the Pancreas in Infants and Children. Charles D. May and Charles Upton Lowe, Pediatrics, 1:2, 159-173 (Feb.), 1948.

The first 38 cases of fibrosis of the pancreas reported from the Boston Infants' and Children's Hospital were all dead by the age of two years. The authors were surprised to find children with this disease who remained alive and well up to six and eight years of age without any form of therapy. In all cases of fibrosis of the pancreas there is an impaired absorption of food and a pulmonary lesion. There is also the absence of tryptic activity in the duodenum. The essential point which the authors wish to stress is that the prolongation of life in these patients is more dependent upon satisfactory therapy for the pulmonary process (aersol penicillin) than upon any dietary regimen.—*D.R.D.*

* * *

Atypical Adynamic Ileus

Atypical Adynamic Ileus Apparently Caused by Nutritional (Thiamine Chloride) Deficiency: Report of Six Cases. D. J. Leithauser, Surg., Gyn., Obs. 86: 543-550 (May), 1948.

The author calls attention to a form of adynamic ileus resulting from thiamine chloride deficiency. He cites such cases in which the distention was not controlled by intubation or prostigmin, but responded promptly to the administration of thiamine chloride and vitamin B complex. The author makes two suggestions: (1) that vitamin B complex with high thiamine content be administered to all surgical patients the day before operation and for three days thereafter. He states that in his experience this has almost entirely eliminated postoperative distention. (2) that vitamin B complex with high thiamine content be administered to all patients with abdominal distention where mechanical obstruction is not probable, and especially in patients where there is suspicion of liver damage or nutritional deficiency.—*T.P.B.*

* * *

Acrodynia and Its Treatment

Ingestion of Mercury as a Probable Cause of Acrodynia and its Treatment with Dimercaprol (BAL). Samuel E. Elmore, Pediatrics, 1:643-647 (May), 1948.

Acrodynia is rare in many parts of the country, but relatively common in others. In the Piedmont section of North and South Carolina, acrodynia occurs most commonly during the second half of the first year, and usually under two years of age. It is characterized by fretfulness, restlessness, insomnia, anorexia, swelling of the hands and feet with a deep pink color. The extremities are moist and tender, and frequently exhibited palmer and plenter disquamation. A generalized dusky maculopapular rash appears most abundantly over the trunk and there is profuse sweating even in cool weather. Muscles became hypotonic and deep reflexes are diminished. The photophobia is severe. Gums are swollen and teeth frequently fall out. Hypertension and tachycardia of some degree are always present. These symptoms usually persist for weeks or months.

Warkany has shown that the urine of several patients with acrodynia contained appreciable amounts of mercury, whereas there was none in the urine of normal infants. It has been shown that BAL will rid the tissues of arsenic and mercury by virtue of its ability to form more stable compounds with these metals than do tissue proteins and cellular enzymes; with rapid excretion of these compounds, toxicity soon abates.

Two cases are reported which were successfully treated with BAL.

1. White female, 7½ months old, with typical symptoms and signs of acrodynia. Urine specimen collected in a mercury free container revealed a content of 0.08 mg. mercury per liter, as contrasted with normal controls which never contained more than 0.004 mg/1. BAL was given intramuscularly 2.5 mg per Kg. every four hours for 12 doses, each injection being preceded by local infiltration 0.5 cc. of two per cent procaine solution. The interval between doses was then lengthened to six hours for the next two days, then to twice daily for last eight.

The authors report the use of intravenous procaine in 27 patients. They first used it in treatment of the delayed serum sickness that occurred in eight per cent of a series of cases treated with crystallized bovine albumin. The usual therapeutic agents such as epinephrine, codeine, calcium gluconate, although helpful in the mild cases, offered no relief in the more severe cases. The generalized myalgia and arthralgia in the cases were especially severe and it was to relieve this distressing pain that IV procaine was given. The subsidence of all the manifestations of serum sickness occurred with such frequency as to encourage its use in all subsequent instances of serum sickness regardless of cause.

They used one gram of procaine diluted with 500 cc. of normal saline, administered intravenously over a period of two hours.

They reported that of 16 cases of serum sickness treated, 10 obtained immediate and complete relief after one or more injections of procaine. An additional four obtained only temporary or partial relief and two were not benefited at all. Two cases of urticaria caused by known sensitizing agents responded well to IV procaine. Of the five patients with urticaria due to an unknown agent, four obtained temporary relief and one was not benefited. One patient with chronic asthma and one with rheumatoid arthritis did not benefit from treatment. However, a patient with status anginosus was much improved following injection of procaine IV.

The above mentioned 27 cases were reported in detail.

The exact mode of action of procaine in the treatment of serum sickness and sensitive states is not known. Several different theories are discussed.—*H.F.S.*

Neuropsychiatric Association to Meet

The Central Neuropsychiatric Association will meet at the Hotel President, Kansas City, Missouri, on October 29 and 30 with members from Kansas City in charge of the program. All physicians are welcome to attend.

Van Meter Prize Award

The American Goiter Association again this year offers the Van Meter Prize Award of $300 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held in Madison, Wisconsin, May 26-28, 1949.

The competing essays may cover either clinical or research investigations and should not exceed 3,000 words in length. Typewritten, double spaced copy should be sent to the corresponding secretary, Dr. T. C. Davison, 207 Doctors Building, Atlanta 3, Georgia, not later than March 15, 1949.



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Urges Volunteers for Military Service

The council of the Illinois State Medical Society recently made public a resolution adopted at its last meeting urging all young physicians to volunteer immediately for military service. The resolution is directed especially at those young doctors who received all or part of their medical education at the expense of the government, under the wartime A.S.T.P. and V-12 programs, but who did not serve in the armed forces because the war ended before they had completed their courses.

Such students were obligated, by the terms of their contracts with the government, to enter the service when called on at any time up to three years after their training was ended. Since the programs were cancelled in 1945, the three-year period has run out on most of these men, and they are not legally liable to be called. However, the resolution stated, they are still under a moral obligation to repay the nation for their expensive education, aside from their duty as citizens.

Dr. Harold M. Camp, secretary of the Illinois society, in announcing the council's action, pointed out that the armed forces will need 6,000 additional physicians before January 1, 1949.

Payments Under EMIC Program End

No payments can be made from Children's Bureau funds for EMIC after June 30, 1949, according to information received last month by the Kansas State Board of Health. Since no local funds are available for the program except those provided through the Children's Bureau, that date will mark the close of the plan.

The Board of Health has attempted to settle all accounts as soon as possible after closing of each case, so there are no outstanding bills in Kansas except for about 40 infants who are still under treatment. The Board expects to complete all payments before the deadline.

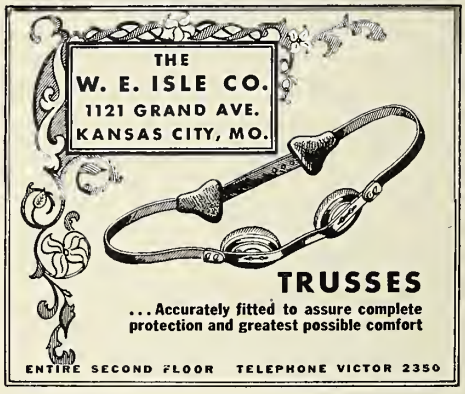
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THE NERVOUS PATIENT*

Henry M. Winans, M.D.
Dallas, Texas

When I was requested to discuss this topic I assumed that I was expected to take up not the scientific aspects of psychosomatic medicine but instead to present as a result of my own experiences some plan for dealing with this problem. For that reason I shall not attempt to review the many excellent papers which have appeared in the literature in the past several years both from psychiatrists and internists but instead shall try to give some means of practical approach in dealing with these patients.

The first and basic factor lies with the physician himself. There is no field nor specialty in which the doctor works which protects him from the necessity of treating patients whose reaction and behavior pattern entitles them to be classified as nervous, and specialists in all fields are at the present being regularly admonished to consider the patient as a whole. In order to accept this the physician must be ready and willing to have the patience to listen through recitations of symptoms and difficulties which are often time consuming. He must avoid the inclination to brush aside the patient's complaints which seem to have no foundation in organic disease while he attempts to concentrate on what seems to him to be the material and therefore essential part of the patient's difficulty. He must also be careful not to allow prejudices to form or to get an emotional reaction himself over the patient who sometimes is tiring, apparently illogical, or even exasperating.

The feeling of pressure involved in dealing with a busy practice is one of the greatest deterrents in dealing successfully with this type of patient. Many times it would be wise to study the organization both in the office and at the hospital to make sure that it is efficient enough to allow the doctor to have time for each patient. A crowded waiting-room in which the patients either have no appointment or else have an appointment which is disregarded induces in the doctor a feeling of impatience with the psychological problems which the patient may present and makes it impossible to arrive at the judicious and patient attitude which this problem requires.

Further it must be realized, although too frequently it seems not to be, that there is no such thing as nerves or imaginations but that the group of symptoms which ordinarily leads one to classify the patient as nervous has fully as legitimate a basis, in fact, as the pain of angina pectoris or peptic ulcer. It is merely a matter of causation and there is actually no nervous patient nor one whose complaints are imaginary but only the patient who presents this symptom complex because of a combination of factors which must be appraised by the medical attendant. Therefore the point of origin in dealing with these patients is in the physician himself.

Despite all the work that has been done on the problem of psychosomatic medicine it has to be admitted that at the present time the diagnosis of psychoneurosis is arrived at largely by the process of exclusion. I have been assured by my friends, the psychiatrists, that a psychoneurosis may be diagnosed upon its own merits, that is, that the symptoms and physical findings are sufficiently characteristic to enable one to make a diagnosis with as much certainty as one may diagnose anemia from a blood count. For several reasons I remain a doubter in this respect. First of all, I do not find that psychiatrists are willing to make an unqualified diagnosis of psychoneurosis without a very careful physical examination including all laboratory and x-ray studies which may pertain to the problem. Furthermore, there are a number of well recognized diseases which at one time or another have led to the mistaken diagnosis of psychoneurosis. Of these I may mention brucellosis, hyperparathyroidism, spontaneous hypoglycemia, and periarteritis nodosum.

There are still other more obscure conditions lead-

*Presented at the 89th annual session, Kansas Medical Society, Wichita, Kansas, May 10-13, 1948.

ing to this mistaken diagnosis and I wish to report the following case:

Case I. This was a white male who was first seen at the age of 36. At that time he complained of a paroxysmal cough for which he had consulted numerous physicians. He had had various studies and therapeutic efforts such as tonsillectomy, adenoidectomy and sinus treatments, all without any effect. His study at that time was entirely unproductive of results, and a bronchogram showed no evidence of bronchiectasis.

The patient was lost sight of until some eight years later at which time he returned with a complaint of severe paroxysmal pain in the left lower thoracic region with radiation to the precordium. His interval history revealed that after consulting numerous other physicians in regard to the cough he finally became discouraged and did nothing further. The cough gradually disappeared in the course of a few years.

In the past two years the pain described above had made its appearance. A typical attack was described as a sudden and unexpected onset of an excruciating pain beginning low in the left chest and spreading to the precordium but also occasionally up the back between the shoulders and down into the abdomen. The pain was so severe that the patient feared immediate death. However, the duration was not more than 10 to 20 seconds and after the attack the patient felt entirely well. He developed an intense fear of these attacks. In the beginning they occurred at intervals of a few months but recently there had been one every two or three weeks. The patient knew of no factor which would bring on or relieve the pain. The attacks occurred under all circumstances of rest and activity.

The physical examination of this patient revealed no abnormal findings whatever, nor did the laboratory provide any more help. X-ray studies of the gallbladder and gastrointestinal tract were all nonproductive. The electrocardiogram was normal at rest and after the exercise test. There were no abnormalities found in the cervical or throracic spine.

In reviewing the history it was tempting to assume that both the present complaint of paroxysmal pain and the cough of which he had formerly complained were due to a psychoneurosis. However, such a diagnosis would have been predicated upon exclusion since there were no definite findings to indicate that the patient had a psychoneurotic state. It was decided to have an electroencephalographic study. Dr. Paul M. Levin reported: "All areas showed irregularity of the rhythm with prominent bursts of six to seven per second waves. Alpha activity occurred to a moderate degree in the occipital regions, at a rate of 11 to 12 per second. Hyperventilation caused an increase of the six-cycle waves. There was no spiking. The record was interpreted as showing a generalized dysrhythmia with paroxysmal six to seven per second activity, suggestive of a convulsive state (psychomotor type)."

The patient was placed on phenobarbital with complete relief of his symptoms. He has now been followed for over a year and there have been no further attacks.

The point I wish to make in the above is that our knowledge is not as yet sufficient to enable us to be dogmatic about the diagnosis of the so-called "nervous" patient.

Another fact which has been mentioned a number of times is that the presence of a psychoneurosis by no means vaccinates the patient against organic disease, and again I wish to relate a sad and humiliating experience of my own in this direction.

For several years I attended a man who at the time of his last visit to me was 39 years old. He was an extremely apprehensive individual and I had seen him upon numerous occasions with symptoms at one time suggesting peptic ulcer, at another time heart disease. His chest had been x-rayed several times because of his fear of tuberculosis. He appeared at my office late one afternoon without an appointment, complaining of pains in the upper abdomen and lower chest. As usual he was anxious; his pulse was rapid, and his hands were moist. I took the time again to examine him carefully and found nothing beyond the above. An electrocardiogram was entirely within normal limits. He was given reassurance and started home but he never got there. On the way he died suddenly from myocardial infarction.

The patient who is nervous and whose doctor has become accustomed to symptoms and complaints not based upon discernible organic disease is probably in a dangerous state and perhaps should consult a different physician each time he has symptoms in order if possible to avoid the conviction his doctor may have that all symptoms past and future are based upon a neurotic reaction.

Indigestion is one of the most common complaints of the nervous patient and we were accustomed in the armed services to dealing with large numbers of patients presenting symptoms of peptic ulcer but having no x-ray findings to substantiate the diagnosis. It was the usual custom when no organic findings appeared to diagnose these patients as psychoneurotics, yet as time goes on it becomes apparent that a much greater percentage of these patients actually have peptic ulcer than the general population at large. Either, as has been suggested, ulcer is the result of psychological disturbances or a good many of these patients actually had ulcer

which at the time of study could not be detected. This fact in itself is sufficient to prevent one from being too certain that the symptoms have no organic basis.

So far the discussion has dealt with the fact that patients may be nervous and still have an organic basis for their symptoms. There is another side to this problem. In a good many instances patients have complaints which are iatrogenic, that is, planted in them by the physician himself. It is one of the psychological hazards of the average doctor that he is reluctant to tell a patient that he finds nothing organically wrong. We seem to have a conviction that if a patient comes to us with a complaint it is up to us to find some basis for it.

This conviction is apparently strengthened as, in addition to taking the history and making the physical examination, x-rays and laboratory studies are added. Seated opposite the patient with the records spread out and perhaps x-ray films on view, it is disturbing to say that after all of these investigations no organic cause for disease has been found. The physician is apt to believe that it is his fault and to be puzzled and irritated by it. On the other hand the patient perhaps is considering the time and expense that he went to in order to have the studies made. To be told that there is nothing wrong is an anticlimax for both the doctor and the patient. Therefore we all encounter patients who under such circumstances have been told that the gallbladder does not empty properly, that the large bowel has a spasm in it, or that there is a spot on the lung, or that there is arthritis in the spine. All of these things may be entirely true but as a rule they have no connection whatever with the patient's symptoms and do serious damage because such explanations for symptoms cloud the issue and prevent a true understanding of the cause.

There are several ways of meeting this situation besides surrendering to it and ascribing the symptoms to a vague and probably incorrect cause. The brash physician tells the patient that there is nothing wrong and to forget about it. The patient usually responds by forgetting about the doctor. Sometimes the resistance of the surgeon is worn down and he resorts to removing the appendix for a pain in the side, or an ovary, or a gallbladder. There is scarcely a tissue in the body which after being removed and prepared for microscopic study will not show some alteration in structure and many of the reports of the pathologist upon these tissues are masterpieces of equivocation.

There is only one way to deal with the situation properly and this requires tact and patience. To begin with, a patient is quite properly resentful if told that his symptoms have no basis in fact or that they are imaginary. He is also offended if the suggestion is made that he needs a psychiatrist unless this suggestion is preceded by careful explanation. Despite all of our attempts to educate the public in regard to the proper use of a psychiatrist, the patient who is told bluntly that he needs one usually believes that the doctor thinks he is crazy. It is, therefore, necessary to approach the explanation by stating first of all that the patient's symptoms are real and not imaginary, that they have a basis in fact and not in imagination, and that if the services of a psychiatrist are needed it is only because a psychiatrist is a speciailst who is being called in in the same way that a dermatologist or an ophthalmologist might be consulted. It is necessary at this point to consider whether all patients who may be classified as being nervous actually have a psychoneurosis.

Recently I investigated the complaint of indigestion as it occurred in a thousand office patients. Of these thousand patients, 192 had the primary complaint of digestive disturbance but after careful study organic disease was found in only 55 of them. This left a remainder of 137 cases in which careful investigation revealed no organic findings. This percentage of close to 70 agrees with the findings of some other authors who classified all of these patients as being psychoneurotic. However, in these 137 cases, only 40 per cent could be so diagnosed if accepted criteria for making the diagnosis were applied.

What then was wrong with the remaining 59 patients? A careful consideration of the total situation revealed that in one way or another the cause for their symptoms was a matter of hygiene. The patients did not get enough rest, or their eating habits were improper, or there was unusual stress and responsibility or overindulgence in tobacco, coffee or alcohol. The patients were nervous, it is true, but neither an evasive explanation of a poorly functioning gallbladder nor the diagnosis of psychoneurosis would have served to relieve the situation.

Instead the problem came back to one of common sense which is so frequently talked about but which we all apply with difficulty and sometimes against resistance on the part of the patient. How often does the patient come complaining of fatigue? And how frequently do we explain to him that he has fatigue for a legitimate reason, namely he does not get enough rest? Too often, I fear, the explanation is based upon perhaps an abscessed tooth or some other unrelated cause and vitamins are prescribed, with the result that the patient goes his way with no clear understanding of the situation. If the patient needs more rest or less tobacco he should be told so and no medication prescribed, for he himself considers it illogical to be told that there

is nothing wrong and yet to be given medication at the same time.

The question is frequently asked: Should all nervous patients be referred to a psychiatrist? The answer, of course, is *no* for several reasons. First of all there are not enough psychiatrists in this country to take care of all these patients. Beyond that there are several different kinds of psychiatrists. There are those who are interested primarily in the psychoses and who will not have sufficient time to deal with the psychoneurotics. There are also psychiatrists who are committed to the idea that these problems can be solved only by a prolonged and expensive course of psychoanalysis. This form of approach is beyond the means and ability of most patients.

If a psychiatrist can be found who is genuinely interested in the psychoneuroses and psychosomatic medicine, he should by all means take care of those patients who present serious difficulties. But there is a method to be followed even in this. First of all, a patient should be referred to him only after the most careful consideration and study to make sure that some hidden disease or tumor is not present. On the other hand, once the patient is put in the hands of the psychiatrist he should be left there completely. Frequently the psychiatrist is handicapped and has his efforts spoiled by the interference of the medical adviser who, having referred the patient, still wishes to keep his finger in the pot.

We cannot all have adequate understanding of psychiatric principles but fortunately, in the case of most of the patients, this is not necessary. By the observance of certain fundamental principles it is possible to deal with these patients effectively and in such a way as to arouse their gratitude. As a result of the brief consideration which has preceded, these principles appear to be:

1. That the physician so indoctrinate himself that he is willing to listen as long as may be necessary to the patient's story. This has its own reward for in the greater number of cases the patient himself will tell the real difficulty if allowed to talk long enough.

2. It is necessary to bear in mind that as yet we have no decisive method of making a diagnosis of psychoneurosis. There are numerous diseases which initially at least produce symptoms and findings indistinguishable from those of psychoneurosis, and careful consideration must be given to this fact. Beyond that, the psychoneurotic is not protected against serious or fatal disease and one must be alert at all times to recognize symptoms and findings which indicate the presence of organic involvement.

3. There is a method of dealing with these patients which can be applied in a progressive way. First of all, a logical and rational explanation for the symptoms must be made to the patient. The pain in the neck is indeed a pain but it may be caused by the troubles of life and not by arthritis. Second, the patient's reaction to his symptoms must be diverted away from the idea that they represent serious and perhaps fatal organic involvement. Finally, it must be recognized that these patients are essentially egocentric. The world revolves about them and their thoughts are turned inward and their reactions having no other place to go resort to ideas of disease.

One of the best cures for the nervous patient is to arrange for him to be involved in doing something for someone else. It is a matter of common observation that the nervous or psychoneurotic patient is frequently at his best in some family crisis or emergency when he is extending and projecting his personality and ability beyond himself.

Many a physician has moments when he wishes that he dealt only with organic and even palpable disease, that he might be spared the annoyance and irritation of the long conversations and the repeated questionings, but for most this is an idle dream. We shall all continue to be obliged to deal with the nervous patients. For most of us they will make up a large percentage of our practice. We will do well to learn to like them and better still to see to it that they like us.

REPORT ON 116 CASES OF INTERVERTEBRAL DISCS

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In order to re-evaluate the end results of our surgery on retropulsed intervertebral discs, the 116 cases thus diagnosed and operated between June 1944 and October 1946 were reviewed. The technique used in this period slowly evolved from a simple removal of the herniated disc (43) to a removal of the herniation plus a simultaneous spinal fusion of the involved area (73). A modified Hibbs fusion was done with cancellous bone obtained from the posterior ilium, a cortical clothes pin graft placed between the vertebral spines, and frequently (62) internal fixation with screws through the articular facets of the involved vertebra. Table I shows the months post-operative at the time of analysis and reveals this gradual change in technique.

TABLE I

Type of Procedure	*Months Post-Operative at Analysis*						
	36-41	32-36	28-32	24-28	20-24	16-20	12-16
Simple Disc	8	15	14	5	1	0	0
Disc and Spinal fusion	1	2	7	8	20	18	17

An attempt was made to obtain recent information on all patients in this series by a recheck examination or questionnaire. Eighty-nine questionnaires were sent out; recent examinations were available on 27 and further examination was considered unnecessary. In response to the questionnaire, 31 replied by letter and 25 returned personally for an examination. This reply rate (62.9 per cent) added to the 27 with recent routine examination gave a total of 89 or 71.5 per cent on whom recent information was available.

In the two years under consideration, there was a gradual change in the diagnostic procedure. In the first 22 cases, routine use was made of myelography; 21 showed definite retropulsion at surgery; the x-ray findings were indefinite in the 22nd case. This disc was reported at surgery as soft and necrotic with no definite bulging into the neural canal. The diagnosis was made in 94 cases without the use of myelography, 80 herniations were definitely proven in surgery, 11 were found to be soft and necrotic without definite bulging; in three cases the diagnosis was incorrect.

Radio-opaque studies were dropped because (1) the symptom complex of the herniated disc is so definite that the diagnosis can be made without subjecting the patient to the additional procedure; (2) the myelographs are indefinite or negative for soft and necrotic discs which with weight bearing undoubtedly produce true protrusions; (3) several cases developed a neuritis following the use of radio-opaque substances of sufficient seriousness to warrant the discontinuance of this material unless the diagnosis was questionable.

Roentgen films are, however, considered of some value in helping to diagnose the condition and the level of the lesion. It is believed that there may be a direct relationship between a narrowed intervertebral space and a retropulsed disc though this is definitely variable. The degree of narrowing is based upon x-ray evidence of a decrease in the vertical height of the intervertebral disc and is graded as probable narrowing 1°; definite narrowing 2°; marked narrowing with productive changes about the vertebral margins is 3°; almost complete obliteration of the intervertebral space is 4°. Table II is a resume of the narrowed intervertebral discs in this series.

TABLE II
NARROW DISCS

Degree of Narrowing	*Disc Level*		
	3-4	4-5	5-1
First Degree	3	6	24
Second Degree	0	3	15
Third Degree	0	2	3
Fourth Degree	0	0	0

A total of 56 intervertebral discs were diagnosed by x-ray as narrowed, with six patients having two narrowed discs. A retropulsed intervertebral disc was not found at the level of the narrowed disc in eight cases at surgery.

There were 10 cases of sacralized lumbar vertebra and we believe that the presence of this type of anomaly may predispose to the development of a retropulsion because of the increased strain on the disc from the unstable back.

Further localization of the lesion is done on the basis of the neurological examination. The lesion is looked for between the fifth lumbar and the first

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sacral vertebrae if the Achilles reflex is absent or definitely decreased regardless of sensory changes. If there are only sensory changes or if there are no sensory changes and the Achilles reflex is normal, the lesion is looked for between the fourth and fifth lumbar vertebrae. Table III is a resume of the neurologic examination of this series.

TABLE III
DIAGNOSIS OF THE LEVEL OF THE LESION FROM NEUROLOGICAL EXAMINATION

		Level of the Disc			
Neurological Findings	No. Disc	5-1	4-5	3-4	4-5 & 5-1
Normal Reflex and Sensation	1 (1)	4 (2)	4 (0)	0 (1)	2 (0)
Normal Reflex and Decreased Sensation	1 (0)	3 (1)	10 (1)	2 (1)	2 (0)
Decreased Reflex and Normal Sensation	0 (0)	6 (0)	3 (0)	0 (1)	0 (0)
Decreased Reflex and Sensation	1 (0)	37 (1)	16 (0)	0 (0)	0 (0)

(Number enclosed in parenthesis refers to the discs that were described at surgery as soft and necrotic without definite bulging)

In a previously reported series of 115 cases and in the early cases of this series after a simple disc removal a high percentage of cases required additional surgery. When this was evident the technique was changed to include a spinal fusion. Nine cases in the 43 cases of this series which were originally not fused later required further surgery because of a disc or recurrence of severe back pain. Two had symptoms severe enough to warrant advising a spinal fusion but the operation was refused. In the 73 subsequent cases that were fused at the time of the disc removal none required re-operation. In the six cases that were finally fused the following relief was obtained: 1-100 per cent; 2-90 per cent; 2-75 per cent; and 1-50 per cent.

The nerve root was sectioned in eight cases in which the disc protrusion was insufficient to account for the leg symptoms or the nerve was involved in fibrous adhesions. Four had no post-operative pathological findings; two showed loss of sensation on the lateral aspect of the involved leg and foot, and two had areas about two inches in diameter on the leg where sensation was absent. None had demonstrable paralysis or paresis. Final check-up revealed that four had occasional cramping in the leg that was in no way disabling and four were without pain. Section of the nerve root is a valuable adjunctive procedure when the nerve root appears abnormal or when there is insufficient pathology to account for the radiating leg pain.

Radiographic films of the lateral lumbosacral spine in flexion and extension plus routine A-P films were used to determine the presence of fusion on patients who returned for examination. Routine A-P and lateral films were available on all others. These films revealed no frank failures of fusion but there were nine cases in which the fusion was questionable.

The average hospitalization was 14.06 days without fusion and 16.34 days with fusion.

The surgical complications encountered in this series were: severe bleeding, three; surgical shock, three; death from embolism, one; persistent foot drop, one; inadvertent section of the nerve root, two. (As previously noted this was done electively in eight cases).

In this series of 116 cases 83 (71.6 per cent) were males and 36 (28.4 per cent) females. The age distribution is shown in Table IV.

TABLE IV
Age of Patients

Under 20	2
20-30	13
30-40	55
40-50	35
50-60	10
Youngest	14
Oldest	60
Average age	38.01

End results were tabulated on the patient's evaluation of the percentage of symptom relief to determine whether there was any advantage of the fusion procedure over a single disc removal. This analysis (Table V) reveals that in patients without fusion 27 per cent had at least 90 per cent relief and 90 per cent relief was obtained in 48 per cent of the fused cases.

TABLE V
Percentage Relief From the Operation

Results	*Without Fusion*	*With Fusion*
100% Relief	2 (5%)	16 (22%)
Greater than 90% Relief	9 (22%) 27%	19 (26%) 48%
Greater than 75% Relief	15 (36%)	20 (28%)
Greater than 50% Relief	13 (32%)	11 (15%)
Less than 50% Relief	1 (2%)	4 (5%)
Unimproved	1 (2%)	3 (4%)

The cases were again examined for the presence and the severity of back or leg symptoms post-operatively (Table VI). Patients who had had a spinal fusion complained less frequently of back or leg symptoms and when present these symptoms were less severe.

TABLE VI

Presence of Back or Leg Symptoms Post-Operatively

	Solid Fusion	*Probable Fusion*	*Not Fused*
Leg Pain			
None	31	11	17
Mild	10	4	15
Moderate	8	3	8
Severe	2	0	8
Back Pain			
None	26	9	13
Mild	12	4	15
Moderate	9	5	10
Severe	2	0	10

When this was written two of the patients without fusions were unable to work, 14 were doing light work, 16 moderate work, and three heavy work. Of those fused two were unable to work, 10 were doing light work, 35 moderate work and 24 heavy work. In this series 81 patients returned to their previous work, 17 returned to some type of lighter work and four were unable to work. Some patients were in a position to discriminately select their occupation and thus avoided tasks that had previously caused trouble.

SUMMARY

1. Radio-opaque studies are not necessary for the diagnosis of a retropulsed intervertebral disc. An accurate diagnosis can be made from a careful history, physical examination and routine x-ray films. The radio-opaque material has a detrimental effect on some patients with the production of peripheral neuritis.

2. Narrowing of the intervertebral space on radiographic examination is considered to be of some significance in the diagnosis of a retropulsed intervertebral disc.

3. Loss of the Achilles reflex with or without sensory changes usually places the lesion between the fifth lumbar and first sacral segments. Purely sensory disturbance without reflex changes usually places the lesion between the fourth and fifth lumbar segments.

4. Removal of the herniated disc with a simultaneous spinal fusion will produce an appreciably higher percentage of good results than the simple removal of the herniated material. Fusion does not add to the surgical risk or significantly prolong the hospital stay.

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THE SURGICAL REPAIR OF IRRADIATION DEFECTS*

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Treatment by irradiation has effected cures of many lesions and justly deserves a high position in the therapeutic armamentarium. Yet, since the beginning of treatment by x-ray and radium, injuries have been recognized as the result of irradiative therapy. Over-exposure under the fluoroscope has produced many irreparable burns on the hands of pioneer fluoroscopists especially, as well as on patients; many fingers of skilled physicians and surgeons have become useless from the prolonged handling of radium without simple safeguards. Unpreventable sequelae of heroic treatment have been justifiable; however, there are those injuries which result from overenthusiasm, ignorance, and negligence. Relatively benign skin lesions have been given a few "r" in successive treatments over many weeks or months only to have years later the inevitable skin lesions of radiodermatitis which are immeasurably worse than the original condition.

"Unless surgeons are able to repair damage from irradiation, roentgenologists will not use intensive doses and they will not cure as many patients," was the interesting statement of Daland[2]. The repair of injuries from irradiation can be accomplished for many patients, alleviating their pain and replacing the scarred ischemic or necrotic tissues. The methods of repair may be difficult due to the pathologic changes having taken place in the tissues. The principal reason for this paper is to reemphasize the point that many irradiation injuries can be corrected.

The histopathologic study of lesions following radiation can clarify an understanding of the damage and of the difficulties encountered in effecting a repair. First, the cells themselves are damaged and exhibit varying degrees of retrograde change from swelling to death. Cellular function is also altered. Cells adjacent to one another show marked variations in the degree of injury. The chromosomes of the cells may be hit, a fact which leads to subsequent changes in the offspring cells of later mitoses, even to death. Second, the intercellular substances are affected, elastic fibres degenerating and collagen strands hyalinizing and coalescing. Third, the blood vessels of the irradiated area are damaged, endothelial swelling and thrombosis occurring early and going on to fibrous obliteration of small vessels, and there is a thickening later with collagen in the walls of large vessels. Telangiectases in the skin are the sequelae of blockage of small vessels. Although there is an early hyperemia of the treated area, no evidence of a stimulating effect from irradiation can be found, according to Warren[9]. All changes appear to be the result of cellular damage of some degree.

Various tissues differ in their degree of radiosensitivity. The following list is in the order of decreasing sensitivity to irradiation (Warren[9]): (1) lymphocytes, (2) granulocytes, (3) epithelium, (4) smooth muscle, (5) fibroblasts and derivatives and (6) neurons. Germinal epithelium is particularly sensitive. Since the skin is almost always the target of treatment or the medium through which the rays must pass to hit the deeper structure desired, its sensitivity is of particular interest and deep treatment should be designed to prevent excessive skin dosage.

Changes which are seen in the skin in late radiodermatitis are characteristic, and the diagnosis may be made almost at a glance. In the skin one observes atrophy, sclerosis, telangiectasis, pigmentation, hyperkeratosis, papillomatosis, ulceration, or epitheliomatous degeneration. It appears white, shiny, thick, nodular, hairless, and dry, and there is often a brownish mottling with thin red lines of telangiectatic vessels. Microscopically, it presents a piling up of the outer layers of the epidermis, flattening of the rete pegs, hyaline change in the dermis, an absence of hair follicles, sweat, and sebaceous glands, and sclerosis with varying degrees of obliteration of blood vessels. Ulceration may be present and sometimes the lesion is undergoing malignant change.

In fat and fascia the changes are mainly those of sclerosis and thickening. Fatty areas are often hard and produce a grating sensation when cut with a knife. Viability is low due to direct assault on the cells, but this is due chiefly to the avascularity and scarring. Fascial thickening and excessively adherent fibrosis makes surgery difficult, especially when it is desirable to establish planes of cleavage around important structures as in the dissection of regional lymph nodes. Considerable atrophy of fat takes place late.

Bone particularly is often hard hit but its general architecture is usually maintained. A diffuse sclerosis develops with a patchy distribution of excessive calcification intermingled not infrequently with areas of rarefaction. This produces a marbled appearance on x-ray examination. Although we may be dealing with a general devitalization of osteoid elements, the bone is usually not dead with the development of sequestration unless infection supervenes. The line of demarcation is indefinite for the

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most part, but osteomyelitis can become extensive and difficult to treat if bacteria should gain access to these areas of radionecrosis such as may occur in the mandible when ulceration of the mucous membrane extends to the periosteum. Infection of the gums around the teeth sometimes opens an easy avenue for the spread of that infection to bone. Pathologic fractures may occur in bones deeply covered by soft tissues (Gratzek et al[6]).

Cartilage, being a relatively avascular and inert tissue, presents little change unless infection supervenes but in that case it may slough and drain for protracted periods until adequately excised.

Muscle, both smooth and striated, is relatively resistant; however, when it is heavily irradiated, this tissue develops a grayish brown appearance, consistent with the diminished blood supply. The fascia of muscle presents sclerosis and thickening similar to that seen in fascia elsewhere. In nerve tissue, as might be anticipated, little change can be demonstrated unless it is hit remarkably hard and then necrosis and fibrosis may be found.

In the vascular system definite damage may be produced in cellular elements as well as in blood vessels. Lymphocytes and granulocytes often are diminished markedly in the peripheral blood and in their sites of formation. The bone marrow and lymph nodes present extensive damage. Endothelial cells are swollen or necrotic and thrombi are formed within the lumina of smaller vessels. The walls of the larger vessels may appear thickened and sclerosis in the media and adventitia frequently produces diminution in calibre of the vessels. Lymph vessels may be blocked with the appearance of lymphedema in the area of drainage.

The tissues are principally deprived of their normal capacity for growth and repair, as Conway[1] aptly states. Replacement or recoverage is fundamental and must be surgical although there are those who advocate that further irradiation is of therapeutic value (Low-Beer et al[8]).

The tissue changes which have been presented above make surgery difficult. The main concern is that of blood supply. The avascular bases of ulcers do not nourish skin grafts. When adjacent tissues are shifted for coverage their blood supply may be so meager as to produce necrosis. Deficiency in collateral circulation makes the ligation of large blood vessels hazardous for fear of distal necrosis. Sharp dissection around vital structures is often necessary and may entail danger because of the dense fibrosis, and the matting together of tissues. Sequestra of bone, cartilage, and tendon necessitate wider removal to viable tissue than in non-irradiated structures. Of considerable importance is infection which may be very hard to overcome or eradicate due to necrotic tissue, avascularity, lack of normal leukocyte response, and blocked lymphatics with edema. Infection is promoted by the avascular, hyalinized, intercellular substance which acts as a tenaceous sequestrum (Warren[9]).

That 20.6 per cent of 97 patients reporting to the Mayo Clinic with chronic radiodermatitis had carcinoma in the affected skin (Ghormley[5]) poses a threat which is real and formidable. Of the twenty-one patients, amputation had to be resorted to in fifteen. As Figi[4] point out, carcinoma is a late change occurring in the keratotic or ulcerated areas. The earliest case of cancer seen by Daland[2] occurred two and one-half years after treatment. Tissues other than the skin may undergo malignant change following irradiation therapy, and osteosarcoma, fibrosarcoma, leukemia, and carcinoma of the lung have been reported.

A convenient classification of cases with respect to etiology is useful (Douglas[3]):

(1) Accidental x-ray burns of physicians

(2) Injury from intentional massive dosage for neoplasm

(3) Late change from repeated small dosage given for superficial therapy

(4) Burns to patients from prolonged exposure under the fluoroscope.

We are still reaping the harvest of pioneer years and are likely to continue to do so for some time, although the days of ignorance as to protection, calibration of machines, prolonged exposure, indications for treatment, and knowledge of accumulated dosage should be over. With the exception of those changes following massive therapy other irradiation injuries may be preventable.

The underlying principles of surgical treatment are the same for all patients, namely the removal of the damaged structures and coverage with viable tissue. The variations in management are chiefly matters of technique.

Skin with a marked degree of radiodermatitis should be excised to a healthy vascular base and a thick split or full thickness skin graft applied. Old ulcerated areas must be excised widely to good blood supply and either skin grafted or covered with flaps from adjacent structures unless the blood supply seems inadequate, under which circumstances flap coverage should come from a distance. When bone, cartilage, joints, or tendons are exposed, a flap containing sufficient fat pad for protection should be utilized. When the subcutaneous fat has atrophied leaving a depressed area over a prominent exposed surface such as the cheek or chin, a flap often will

give a more pleasing end result from the cosmetic standpoint than a free graft. Small depressed areas can be multiply gradually excised to advantage. The palm or sole is usually best covered by a flap, especially over weight bearing surfaces. A flap from a filleted toe as described by Greeley[7] is useful for covering a small area of the distal ball of the foot damaged by irradiation. Necrotic bone and infected cartilage should be widely removed. Bone grafts require a vascular bed for union which means wide removal of eburnated bone ends at the fracture site. Sharp dissection is necessary in the removal of regional nodes en bloc but should be done with caution as vital deep structures are difficult to identify and free. Amputation may have to be resorted to in some cases. Frequently the removal of the damaged area will greatly alleviate the pain but occasionally operations on the regional or sympathetic nerves may be necessary. All safeguards such as rest, open drainage, and chemotherapy should be employed to prevent or treat infections in irradiated tissues.

The following cases have been selected as examples of different methods of repair and as types of each of the four etiologic groups previously mentioned. The surgical principles outlined above are illustrated.

1. Accidental X-ray Burns of Physicians

Case No. 1: In March 1945, the patient, a physician 48 years old, developed a painful ulcer of his right index finger following a period of considerable work with his x-ray machine. The ulcer extended from the proximal interphalyngeal joint to the tip on the palmar and radial sides. On January 14, 1946, a thin split skin graft was applied to the finger. Because of an incompletely successful "take" of the graft and because of the intense pain and his desire to return to work as soon as possible, the finger was amputated at the patient's request with closure of the wound. On the second postoperative day the patient had a chill followed by a temperature of 102 degrees F. and complained of considerable pain in his hand. With penicillin administration, wet dressings, complete rest for the hand, and open drainage, the temperature came down in four days and the swelling subsided so that the patient could be safely discharged from the hospital on the tenth postoperative day. He has a useful hand now.

Comment: Acute infection in this doctor's hand following the amputation of the heavily irradiated finger was controlled but could have been serious. Removal of the irradiated area gave an early useful hand instead of years of pain and disease that would have followed conservative treatment.

2. Injury From Intentional Massive Dosage For Neoplasm

Case No. 2: In December 1946, the patient, a 51-year-old white woman, had a hysterectomy for adenocarcinoma of the uterus. Postoperatively, a course of deep roentgen therapy was administered to the pelvis within 14 days through the lower abdomen, lower back, and sides. These procedures were performed elsewhere. An acute reaction followed the x-ray therapy with marked tenderness, redness, pigmentation, and slough around the lower midline celiotomy incision. Two attempts of closure of the wound had been unsuccessful and the patient was referred to Kansas City for treatment in July 1947.

The tissues of the lower abdominal wall were so avascular, necrotic, and inflamed that attempts for simple closure or excision followed by skin grafting were not considered (Figure 1). It was thought nec-

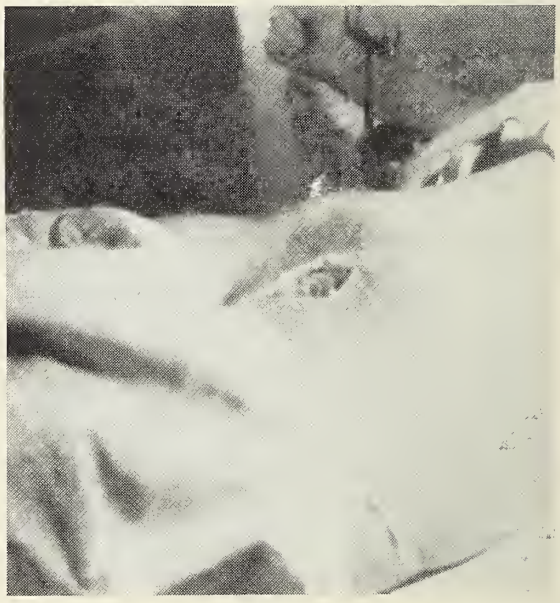


FIGURE 1

The necrotic irradiation ulcer of the lower abdominal wall after two previous attempts at closure elsewhere.

essary to bring good tissue for coverage from a distance where blood supply was more generous. At Providence Hospital on July 12, 1947, a bipedicled tube was constructed on the right flank and its bed covered with a skin graft. Because of excessive fat in the abdominal wall and because of closure under some tension, the partial slough developed in the midportion of the tube making it unusable. On July 28, 1947, a large bipedicled flap was raised from the left flank, covering its bed and undersurface with skin grafts. This flap was partially sectioned through its posterior border twice before its transfer on August 18, 1947. At this time the entire ulcerated area was excised, going one inch beyond the ulcer periphery and down through the rectus sheath and external oblique aponeurosis. The base appeared

somewhat avascular but the underlying muscle appeared viable enough to support the flap. The pubes were exposed to the periosteum. The transferred flap was a little short but was sutured to the denuded area around the margins. A slough occurred in the distal one inch of the flap and down over the mons to the clitoris. The remaining uncovered area became quite necrotic again and drained foul green pus.

The patient was transferred to the University of Kansas Medical Center in late August and on October 2, 1947, a bipedicled flap was raised vertically on the right thigh, lining its bed and under surface with skin grafts. The distal end of the flap after two and a half weeks was partially cut twice and, with blood supply assured, it was transferred on October 20 to the open area over the pubes after removal of the necrotic tissue to a good vascular base. At the same time, the unused flap ends in the right flank were returned to the abdominal wall. The take was excellent and the ulcerated area was finally covered. The remaining open granulation tissue of the unhealed donor site of the thigh flap was skin grafted on November 6 with a good take (Figure 2). Immediately the patient's morale, general condition, appetite, blood count, and weight improved rapidly.

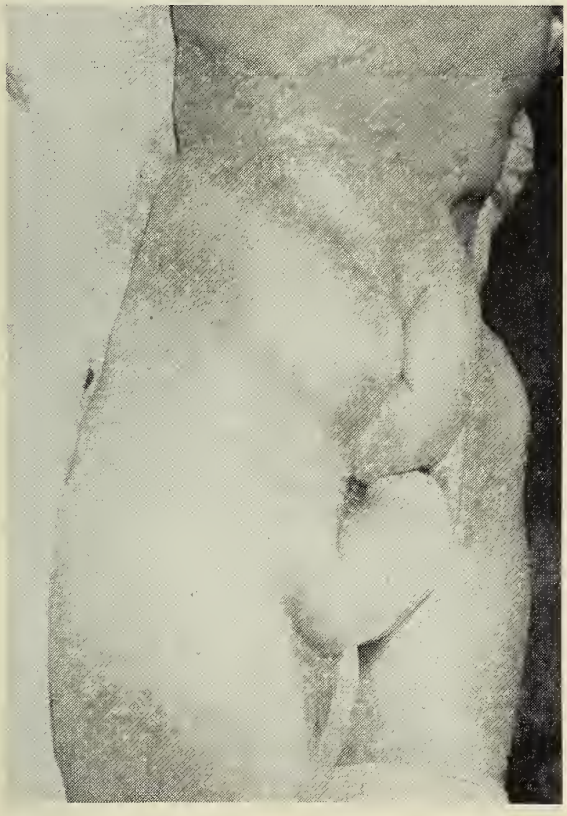


FIGURE 2

The large flaps covering the lower abdomen after excision of the irradiated area. Final photographs not obtainable yet.

On December 11, the left flank and thigh flaps were cut and the unneeded proximal ends returned to their original beds. When last seen in late December the patient was up and about and was comfortable after a year of great distress.

Comment: This interesting but difficult problem was finally solved after many disappointments. A large area of the lower abdominal wall was covered by flaps from a distance. A thick panniculus added to the difficulties of shifting flaps. Not infrequently incision in avascular areas such as this abdominal wall will produce further necrosis. Therefore, excisions should be made to good blood supply. Probably not enough of the ulcer periphery was excised at the time of the first flap transfer. The flap, though huge, was not large enough.

3. Late Change From Repeated Small Dosage Given For Superficial Therapy

Case 3: Most of his life the patient, a 57-year-old white male, had had psoriasis. Several of the skin lesions had been treated with repeated small doses of x-ray three years previously. One of these areas on the right lower leg had ulcerated following the course of treatment and had not healed in spite of the application of many different ointments and lotions. The ulcer on the upper lateral side of the calf measured two by three inches and had a dirty gray base with thick rolled margins (Figure 3). There were areas of radiodermatitis without ulceration over the left knee and right elbow which had also been irradiated. Typical psoriatic patches were present over the scalp, eyebrows, face, neck, chest, and elbows.

On May 16, 1947, under regional block anesthesia the ulcer of the calf was excised widely down to the muscle which bled adequately and a split skin graft from the thigh was sutured to the margins of the wound. The pathological report of the removed tissue was reported as a chronic ulcer with no evidence of malignancy. The skin graft took completely and the patient was dismissed on the ninth postoperative day. In September 1947, a patch of psoriasis was noted in the middle of the skin graft which never had been subject to the skin change before (Figure 4). The leg has remained healed without any pain or further disability.

Comment: Three years of conservative treatment produced nothing but disappointment. A skin graft after adequate excision of the avascular tissues produced a cure in two weeks. Whether or not x-ray therapy is of value for psoriasis is extremely doubtful but certainly superficial therapy should be given with caution in regard to accumulated skin dosage beyond tolerance. It is interesting that psoriasis de-

veloped in the grafted skin which had always been clear but which was placed in the location of a previous psoriatic patch.

4. Burns To Patients From Prolonged Exposure Under The Fluoroscope

Case No. 4: For over five years, the patient, a 57-year-old white man, had had an unusable right foot. In 1941 his foot had been fluoroscoped by the company doctor to determine the presence of a possible fracture following an injury. No bony damage was found but the sole of the foot became red and very painful within ten days of the examination and the skin ulcerated. He had not been able to be on his feet to any extent since.

Examination revealed an ulcer three cm. in diameter over the ball of the right foot. The surrounding skin showed marked changes of radiodermatitis and was exquisitely tender. On April 20, 1946, at St. Mary's Hospital, a flap was outlined and raised on the left calf and a skin graft was sutured over the flap bed but the flap was laid back down, its distal end uncut. On the 14th postoperative day the lower end of the flap was cut but the flap again returned to its bed. There was a loss of the distal one inch after the delaying procedure. On May 10 the ulcer of the sole was widely excised down to a good vascular base and the open end of the flap from the other calf was sutured to the bed and margins of the fresh wound. A cross leg plaster cast was applied. The flap, partially sectioned five days before, was completely cut on May 29 and the cast removed. There was an excellent take in spite of my worries concerning his bad cardiac and circulatory status.

The proximal portion of the leg flap was replaced in its bed and the flap on the sole was revised and smoothed down on June 14, 1946. The patient was soon walking without pain for the first time in five years.

Because of difficulty with his great toe the patient returned in March of 1947. The changes of radiodermatitis on the toe, previously noted but not severe, had progressed to produce a painful ulceration. On March 4 a tongue shaped portion of the previous flap on the sole was transferred ninety de-

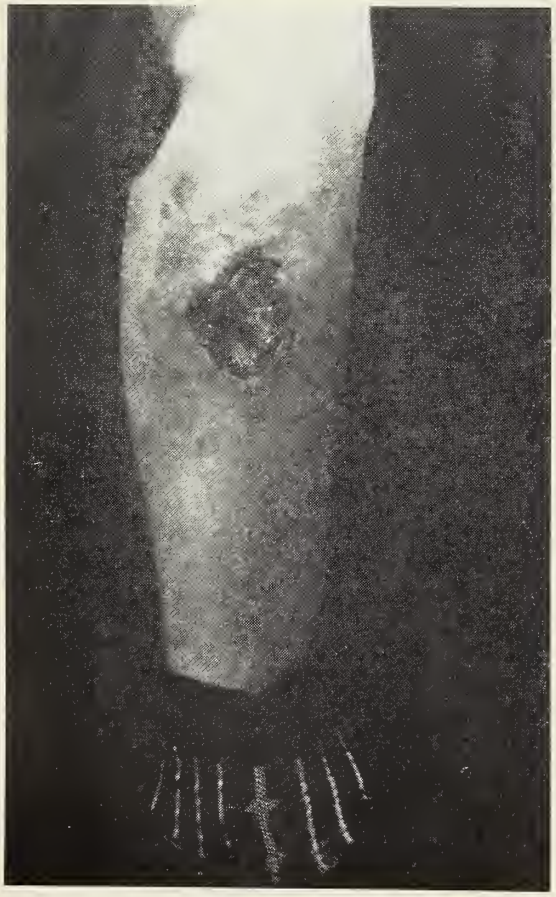


FIGURE 3

Irradiation defect from repeated small doses of x-ray therapy for psoriasis.



FIGURE 4

Result of excision to a good vascular base and application of a split skin graft. Note patch of psoriasis in skin graft.

grees to the great toe after the ulcerated area was excised. The flap remained viable and gave adequate coverage (Figure 5). He has walked well since.

Comment: The skin of the sole or palm is sensitive to irradiation. Replacement for coverage of weight bearing areas must be of sufficient thickness and durability to withstand pressure. A flap is usually necessary to cover the plantar surface. A fluoroscopic burn from a single short exposure caused all this damage which required a cross leg flap for correction. The x-ray machine used here, it was learned later, had not been properly controlled as to intensity of its irradiation. Thirty-two other men were similarly burned by the same machine within 36 hours.

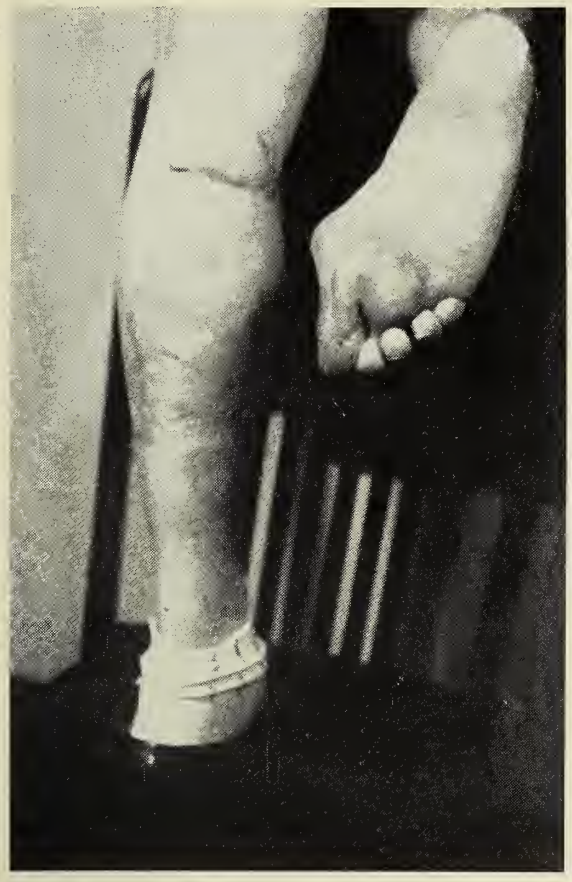


FIGURE 5

Good functional result to sole of right foot by means of a cross leg flap. (Donor site shown on left calf).

SUMMARY

1. Injuries due to irradiation can usually be repaired.

2. The types of injuries in different tissues are described.

3. The repair may be difficult due to the nature of the changes in the tissues and is always surgical.

4. The surgical techniques for different structures and different locations are discussed.

5. Special warnings are emphasized concerning the frequency of malignant change and of difficultly controlled infections in irradiated tissues.

6. Cases illustrating irradiation defects produced by each of the four common etiologic groups are reported and discussed.

BIBLIOGRAPHY

1. Conway, Herbert, The surgical management of post-radiation scars and ulcers, Surg. 10: 64-85, July '41.

2. Daland, E. M., Symposium on cancer: radiation damage to tissue and its repair, Surg., Gynec. & Obst. 72: 372-383, Feb. (No. 2A) '41.

3. Douglas, B., Treatment of x-ray and radium burns by radical excision and grafting, J. Tennessee M. A. 34: 220-224, June '41.

4. Figi, F. A., New, G. B., and Dix, C. R., Radiodermatitis of head and neck with discussion of its surgical treatment, Surg., Gynec. & Obst. 77: 284-294, Sept. '43.

5. Ghormley, R. K., Surgical treatment of roentgen and radium dermatitis, Proc. Staff Meet., Mayo Clin. 16: 69, Jan. 29, '41.

6. Gratzek, F. R., Holmstrom, E. G., and Rigler, L. G., Post-irradiation bone changes, Am. J. Roentgenol. 53: 62-76, Jan. '45.

7. Greeley, P. W., Plastic repair of radiation ulcers of sole, U. S. Nav. M. Bull 45: 827-830, Nov. '45.

8. Low-Beer, B. V. A., and Stone, R. S., Treatment of late post-irradiation ulcers with radon ointment, Radiology 46: 149-158, Feb. '46.

9. Warren, S., Histopathology of radiation lesions, Physiol. Rev. 24: 225-238, April '44.

ATTEND THE MID-WEST CANCER CONFERENCE, WICHITA, KANSAS, JANUARY 20-21, 1949.

PREVENTION AND TREATMENT OF DEAFNESS IN CHILDREN

E. La Monte Gann, M.D., and LaVerne B. Spake, M.D.*

Kansas City, Kansas

Children exhibit all of the various types of deafness encountered in adults and with the exception of otosclerosis, all are similar in that the hearing is more impaired for the high tones than for the low tones.

In as much as some of these children with impaired hearing have already suffered some damage to the auditory nerve or the organ of Corti, it is manifestly impossible to improve the hearing or even arrest the progress of the impairment in all cases. Fortunately, however, those who fall in this group are relatively few.

There are three common causes of non-hereditary deafness in childhood, in the treatment of which we may anticipate some success. These are:

1. Long continued partial obstruction of the eustachian tubes due to hypertrophic lymphoid tissue in the nasopharynx.

2. Chronic or often repeated suppurative conditions of the middle ear.

3. Allergic conditions involving the upper air passages.

Let us discuss each of these in some detail and consider what measures may be taken to correct them.

The function of the eustachian tube is to provide for equalization of atmospheric pressure on opposite sides of the tympanic membrane and to permit ventilation of the middle ear, the mastoid and peritubal cells. Rapid changes in atmospheric pressure in the presence of partial or complete obstruction to the eustachian tubes may produce the acute symptoms associated with an "acute aerotitis." Partial obstruction of the eustachian tubes under normal conditions causes no pain and no tinnitis and particularly in children may cause no subjective symptoms whatsoever.

Improvement in the hearing has been demonstrated too frequently following the removal of adenoid tissue for there to remain any question that eustachian tube obstruction does cause impaired hearing.

Even though eustachian tube obstruction may cause no acute symptoms in children, the following signs and symptoms may serve to warn the alert physician that such a condition is present and that the child is therefore a potential candidate for ear trouble.

1. The history as obtained from the mother may reveal that the child has frequent head colds which are often associated with transient earaches. Further, it may be revealed that during these upper respiratory infections the child's hearing is impaired, and upon recovery from the cold, the hearing improves. A history of fluctuation in the hearing is extremely important in that it serves as a warning of a potentially dangerous condition; it also indicates that the changes which have occurred are not irreversible.

2. The tympanic membranes are usually found to be retracted. The ear drum may present a bluish reflex which is caused by a congestion of the mucosa of the middle ear as seen through the translucent membrane; later the membrane may become opaque and thickened. In time as the tubal obstruction continues, permanent changes take place in the middle ear resulting in a fibrosis of the mucous membrane and limitation of motion of the ossicular chain.

3. The hearing may be impaired for the higher frequencies, i.e. from 5782 to 11584 d.v., on audiometric examination or when tested with tuning forks. This is far above the conversational tone range but as the impairment progresses, the conversational tones gradually become more and more involved and it soon would be apparent in the school room and at home that the child is becoming deaf. Once this stage has been reached the chances of improving the hearing are greatly reduced.

Hypertrophic lymphoid tissue in the nasopharynx which obstructs the eustachian tube orifices can almost invariably be demonstrated in these children by nasopharyngoscopic examination.

And now what about the second common cause of deafness in children, namely chronic or often repeated suppurative infections in the middle ear?

As Crowe[1] has pointed out, suppurative conditions in the upper respiratory tract are in a sense, secondary to a chain of events set in motion by the common cold virus.

All research on the common cold has so far failed to produce a drug or a vaccine which would protect against repeated infections with the virus. The works of Dochez[2] and Rivers[3] have contributed much valuable information about the common cold virus. It is now known that the virus is an anaerobic intracellular parasite; that it can only multiply and produce clinical symptoms after it has gained entrance to the living cell and further, that it must remain in contact with the living cell, undisturbed

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for at least 30 minutes before it can gain entrance to the cell.

Clinical experiments on human volunteers indicate that the nasopharynx is the portal of entry for the virus in the common cold.

These facts appear to warrant certain further assumptions, as yet unproven. The cold virus being air-borne enters the nose where it is carried to the nasopharynx by the mucus and cilia of the nasal mucous membrane. There it finds a lodging place in the crypts and folds of the lymphoid tissue in the nasopharynx. The virus penetrates and destroys the lining epithelium of the crypts. This is borne out by histological study of sections of infected adenoids. The constant pathological findings are a destruction of the lining epithelium of the crypts which are choked with epithelial debris and masses of polymorphonuclear leucocytes. Never does one find focal abscesses or an accumulation of polymorphonuclear cells in the substance of the adenoid tissue.

The virus thus breaks down the protective barrier of an intact epithelium and provides a portal of entry for the pyogenic organisms which are always present in this locality; a cellulitis results, and then as the child coughs, sneezes or blows the nose the infection is forced out through the eustachian tube into the middle ear and an acute otitis media results.

Early myringotomy when indicated and adequate systemic treatment with the sulfonamides and/or penicillin will control the acute infection. They do nothing however to prevent a recurrence of the condition. It is the repeated acute infections which produce permanent changes in the middle ear and thus produce irreversible impairment of hearing.

If the ear complications are secondary to the common cold, then it follows that our efforts must be directed toward preventing repeated infections with the cold virus.

In the present state of our knowledge, the only known way to accomplish this, other than those general measure to increase the bodily resistance of the child, is to eliminate the adenoid tissue from the nasopharynx or at least change its contour by flattening out the crypts and folds, either by surgical removal, irradiation or both, thereby making conditions less favorable for the lodgement of the virus.

Surgery alone is not the answer. We have all seen children who appeared to be improved by the removal of the tonsils and adenoids, only to have a recurrence of ear trouble in from six months to a year following the operation. This is not necessarily the result of poor surgery.

Unlike the faucial tonsil, the adenoids are not encapsulated. They grow as a diffuse mass in the nasopharynx and as an integral part of the mucous membranes. Adenoid tissue in and around the eustachian tube orifices, on the posterior extension of the septum and near the posterior ends of the middle turbinates is inaccessible to surgical removal. To attempt removal of this tissue at operation would most surely result in damage to the eustachian tubes.

It has been known for many years that lymphoid tissue is extremely sensitive to ray therapy. It remained for the late Dr. Curtis Burnam at the Kelly Clinic in Baltimore, Maryland, to determine a safe dosage and a means of applying the irradiation to lymphoid tissue in the nasopharynx. This form of treatment has been used for the past 25 years in the Department of Otolaryngology at The Johns Hopkins Hospital. The dosage used is so small that it will not damage the mucous membrane, bone, cartilage or nerve tissue and yet will always cause a shrinkage of lymphoid tissue. The result, however, is only temporary and it may be necessary to repeat the course of treatments yearly for several years. By this method it is possible to keep the eustachian tubes open, reduce the number of colds and their complications and thus carry the child over a difficult period.

The recognition and treatment of allergic conditions is gradually assuming greater and greater importance in the practice of otorhinolaryngology. Many cases of impaired hearing due to long continued partial occlusion of the eustachian tubes are now recognized as being on an allergic basis.

Not infrequently one obtains a history of constant or often repeated "head colds," i.e. no sooner does the child recover from one episode than another develops. It is well known that the common cold lasts only from 7 to 14 days. It is obvious then that a nasal condition which has persisted for weeks or months is not a simple uncomplicated cold. A careful history will usually identify such a condition as an allergic rhinitis. There is usually a family history of allergy. The nasal smear is of utmost importance; the presence of eosinophiles promptly establishes the diagnosis. In such cases, the underlying pathology is an allergic sensitivity to some food or inhalent.

Such conditions may be temporarily improved by the removal of hypertrophic lymphoid tissue in the nasopharynx through irradiation. However, permanent relief is obtained only by control of the allergy either by removing the offending allergen or by hyposensitization.

Even though a sinus infection is found to be present, it should be remembered that practically all cases of chronic hyperplastic sinusitis and most cases of chronic suppurative sinusitis are on an allergic basis.

(Continued on Page 490)

THE PHYSICIAN AND HOME ACCIDENTS

A childhood without adventure is no childhood, but unnecessary risks can be eliminated without eliminating adventure. The thoughtful physician who has contact with children can be of real service in prevention of accidents.

In the course of well-child supervision, parents should be cautioned:

First: At the age when small infants begin to use their hands, that they may swallow or inhale small objects.

Second, and most important: That when they begin to walk is a signal for a general inspection and clean-up of the home, including:

1. Pots and pans on the stove should have handles turned toward the back of the stove.
2. Care about reaching over the child at table to pour hot coffee or soup.
3. Gasoline has no place in the house.
4. Poisonous substances, including lye and kerosene, should be out of reach.
5. Keep pencils, scissors, knives, and sharp objects out of their hands.
6. Children should be actively discouraged from playing with gas jets and electrical outlets.
7. Care should be observed in the use of electrical apppliances such as wringers and fans.
8. Place guards on stairways.
9. Tablecloths pulled from tables laden with food and dishes are a source of accidents.
10. Poorly balanced, heavy objects are apt to be pulled over.
11. Cribs, playthings, and toys, should be painted with lead-free paints.

(The value of a home call will be improved if the physician will note and mention to the parents the hazards to children.)

Third: The child who has repeated accidents may need special attention from a psychological viewpoint. There is good reason to believe that certain children get hurt over and over again as a sort of unconscious self-punishment to work off feelings of guilt.* Such an accident-prone child should be recognized early and helped to a healthier state of mind before he kills himself.

Home accidents are the leading cause of death of children over one year of age. When the physician begins to recognize his part in making mothers and fathers accident conscious, he will have greatly contributed to their prevention.

Leaflets and booklets on home safety are available for distribution for the physician through the Child Welfare Committee.

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*Journal of Pediatrics, June, 1948: p. 749.

Prepared by the Committee on Child Welfare

SEVEN DANGER SIGNALS OF CANCER

Listed below are the seven danger signals appearing in literature prepared by the American Cancer Society. These may be found in most of the literature designed for lay distribution, but it was felt that the seven danger signals might well be re-emphasized to the medical profession.

This is a simple, direct statement of the most common early symptoms of cancer. They should be kept in mind especially in the examination of patients who are 40 years of age or older.

The seven danger signals are:

1. Any sore that does not heal.
2. A lump or thickening, in the breast or elsewhere.
3. Unusual bleeding or discharge.
4. Any change in a wart or mole.
5. Persistent indigestion or difficulty in swallowing.
6. Persistent hoarseness or cough.
7. Any change in normal bowel habits.

Prepared by Committee on Control of Cancer

PRESIDENT'S PAGE

Dear Doctor:

During the pause that refreshes between election and the legislative session you will perhaps be interested in some of the happenings of the Society.

The special meeting of the Council at St. Francis was a real success. I regret very much that I was in the eastern part of the United States and thus obliged to miss the meeting. But, whenever Dr. Peck calls a special session of the Council, everyone knows it is well worth attending.

The regional A.M.A. conference in Tulsa was well attended and several things developed in the meeting that should be valuable to Kansas. Dr. Murphy made quite an impression on the group with an explanation of his three-point program. Representatives of the A.M.A. were very grateful for the complimentary things Kansas had to report concerning their interest and assistance in the case before the Federal judges.

You will be glad to know, I am sure, of the widespread interest that other states have in the public relations program being developed in Kansas. We are being invited to other parts of the country to tell about the way our various committee projects are dovetailing together to increase public understanding and a desire on the part of the public to assist in the promotion of constructive programs. The Woman's Auxiliary and the Medical Assistants have an important part in this program.

The committees of your Society are functioning 100 per cent. Many of them have had more than one meeting. Such enthusiasm spreads from one group to another to the end that everyone is working for the common welfare of all the people in Kansas.

Space does not permit telling you all the actions taken by the Council at its last regular meeting, but I would like to briefly review a few things of interest. There was a 100 per cent attendance of the councilors and officers and practically all of the committee chairmen were present. Several past presidents and other interested members were in attendance along with trustees of Blue Shield and Blue Cross, Clarence Munns, Kirke Dale and Harold Ingham.

Doctors Beasley, Lowery and Gibbons of the Veterans Administration gave many helpful explanations concerning their program. At the noon luncheon General Hawley spoke briefly but to the point on prepayment medical and hospital plans. Dr. Roy Croson and Dr. Harold Jones gave very interesting reports on the recent N.P.C. meeting in Chicago and Dr. John Porter gave the delegates' report from the American Medical Association meeting. All committee chairmen made concise reports. A vast amount of business was transacted with precision and dispatch.

I guess everyone has been working like this in the Society for years and I just was not aware of the fact. Otherwise so many things would not be in motion at the same time and with such momentum. As we work together more and more we prove the worth of an old Indian saying quoted to me recently by a friend, "Until I have walked two weeks in his moccasins, I will not condemn a man."

Sincerely,

W. Davidson M.D.

President.

P.S.—Oh yes, the alumni meeting.

At a recent meeting of the alumni of Kansas University, we heard Chancellor Deane W. Malott make a statement that is heartening to members of the medical profession, "We at the University of Kansas look forward with much pleasure to the opportunity to work with the officers and members of the Kansas Medical Society, who are so generously giving their time and effort in behalf of the University of Kansas Medical Center, and for better medical training and service in Kansas."

EDITORIALS

Diabetes Week, December 6-12, 1948

The observance of Diabetes Week, December 6-12, 1948, sponsored by the American Diabetes Association, Inc., serves to emphasize to the medical profession the importance of detecting and properly treating this disease, which ranks eighth in the causes of death in this country. The association estimates that there are 2,000,000 diabetics in the United States, of whom 1,000,000 have been diagnosed.

The American Diabetes Association, founded in 1940, now includes 1,000 physician members engaged in directing diabetes clinics, treating patients, teaching diabetes, and conducting research on the disease. The major tasks adopted as its projects are: early discovery of diabetes, providing the best treatment for all diabetics, finding better methods of treatment, solving the problem of premature aging in diabetes, and prevention of the disease.

Early discovery of diabetes mellitus is not difficult in typical cases, but occasionally is overlooked in mild and unsuspected cases. Finding sugar in the urine or a history of the finding of sugar in the urine at any time, leads to the diagnosis, proving the value of routine urinalyses. Diabetes should never be excluded on the strength of a single negative test, and urine-sugar tests should be repeated periodically in overweight adults, women over 40 years of age, and the offspring and collateral relatives of diabetic persons.

If any urinalysis shows sugar, a diagnosis of diabetes should be considered, to be confirmed or disproved by repeated tests of urine and blood sugar evidence. In mild cases diagnosis depends on the recognition of early deviations of blood sugar levels from normal. Any person who has glycosuria and hyperglycemia should be diagnosed as diabetic if no other cause for hyperglycemia is apparent.

Modern treatment is yielding large dividends in improved health and longevity for diabetic patients. The introduction of insulin in 1922 brought radical declines in the death rate among diabetics at every age, relatively greatest at the younger ages. In comparing death rates for the 1939-1945 period with those of the pre-insulin era, the Statistical Bureau of the Metropolitan Life Insurance Company found reductions of 95 per cent or more at all ages up to 30 and of 90 to 95 per cent at ages 30 to 40. At 60, the highest age studied by the company, the rate in 1939-1945 was 53 per cent less than in 1914-1922. The development of insulin also provided more generous and more nearly normal diets for diabetics.

Early detection and better treatment will not, however, reduce the number of cases. It appears, in fact, that the number of cases will increase at a much greater rate than the population, because of the ever-increasing proportion of persons at the older ages and because of the more rapid increase in the number of women than of men at these ages. The susceptibility of women to diabetes on approach of the menopause is symptomatic of the endocrine changes that are characteristic of that period of life, and between ages 40 and 50 the annual rate at which new cases of diabetes arise among women is approximately twice that among men. At older ages, however, the onset rate for the two sexes decreases steadily.

Research is systematically concentrated under the direction of outstanding investigators in the field who are already members of the American Diabetes Association, but the prospects for major practical results do not yet point toward reduced future prevalence or prevention. Consequently, there is need today for postgraduate education of physicians in modern methods of treatment and continued education of diabetic patients in the fundamentals of their condition, since it is usually a lifelong disease. The American Diabetes Association deserves the support of every physician in achieving its objectives, "to improve the treatment of diabetes, to bring the newest knowledge of the disease to all physicians, to encourage and support research in the field, and to increase knowledge of diabetes among the general public."

Tribute to a Country Doctor

With the passing of Dr. J. F. Shelley of Elmdale, 83 years of age, another pioneer physician of Kansas parks his Ford for the last time and lays aside his worn medicine bag. A bag filled to overflowing with the assorted gadgets of his profession. The stethoscope with its cracked tubing. The blood pressure instrument with its fraying cuff. The hypo in its worn case with a couple of used needles and a few tubes of life saving and pain relieving tablets. A bistoury and a few forceps with plating most gone. A few sterile gauze and cotton dressings, for Dr. Shelley well knew the value of the aseptic dressing. A Simpson's forceps and a few other obstetrical necessities. All of these and others, the essential tools of the fast vanishing generation of country doctors.

Dr. Shelley was alert, energetic and faithful to the health interests of his people. He loved his calling and, until advancing years prevented, he spent time and money attending medical meetings, reading up to date medical books and journals in his effort to keep himself abreast of the times.

Forty years ago the writer had just returned from a trip to Washington, D. C., where the first International Congress of Tuberculosis was held, when I received a call from Dr. Shelley asking for a consultation with him on a case of bone tuberculosis. (Dr. S. J. Crumbine in his recent book, "Frontier Doctor," describes this meeting as the greatest of its kind ever held.)

I found Dr. Shelley in his office, working over a microscope of sorts, attempting to identify the "red rods" on slides made from the cold pus aspirated from the knee of his young patient. I feel sure his purpose in calling me, a young inexperienced doctor, was to pump all the information I had gleaned at the Congress after hearing Dr. Koch of Berlin, the discoverer of the T.B. bacillus, and Dr. Calmette of Paris when they almost came to blows over the question as to the relationship of bone tuberculosis in the human and bovine family. A question that still constitutes a "Bone" of contention as it did in that historic meeting in 1908.

Dr. Shelley's interest in the progress of medicine was not motivated by any desire for professional recognition, which he could have enjoyed had he chosen to practice in an urban center. Nor did he crave monetary reward alone. I know his old ledgers will show the record of countless dollars he might have extracted from needy families in the hills around Elmdale.

No, Dr. Shelley was proud to have served his people in a worthwhile profession. A profession which must always merit the best effort from the best type of young manhood and womanhood in Kansas.

God forbid that replacements of doctors like Dr. Shelley will necessitate the use of government compulsion or subsidies of any kind.—*John L. Grove, M.D.*

Industrial Health in Kansas

With the growth of Kansas industry comes an increase in problems pertaining to industrial health. Impurities in the air and toxic substances are just as hazardous to the Kansas laborer as to a person in any other state. Since it is presumably no more difficult to provide safe working conditions to the industries in Kansas than elsewhere, it remains only for someone or some group to stimulate interest in that direction. It appears that no group should be more naturally concerned than the medical profession.

This is not to imply that farseeing Kansas industrialists have failed to take precautionary measures for the benefit of their employees. It is rather to suggest that where adequate industrial health programs are in operation they have come as the result of individual initiative. There is no unified state wide program. Should Kansas become an industrial state, it appears that now would be the ideal time for providing a sound plan for industrial health, and the medical profession certainly could help toward developing this plan. It would be a public service to the state, welcomed by industry and labor alike.

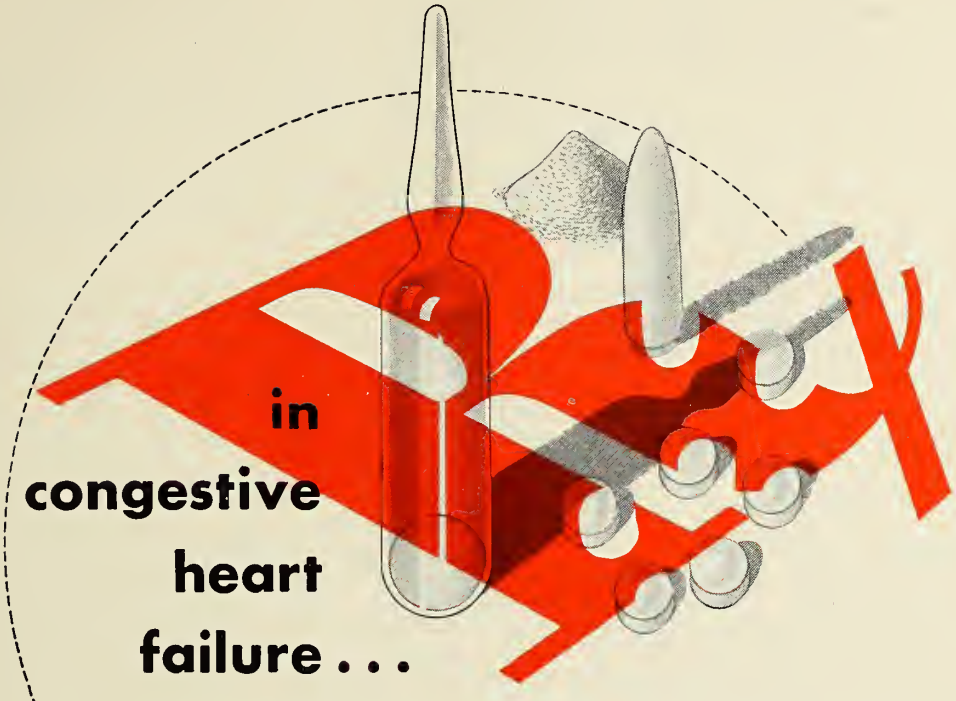
The idea arose from a recent article by an industrial expert who described his visit to the Oak Ridge atomic energy plant. Precautionary measures were so thoroughly worked out and the safety records so excellent that this doctor states he has changed his entire view toward industrial health since this tour. Good industrial health is expensive, but it is an investment that pays dividends by decreasing absenteeism and in reduction of compensation claims. If this can be accomplished under the most hazardous conditions, similar results might be obtained with less difficulty in other types of industrial operations.

A few radiologists have protested against the indiscriminate use of x-ray machines in shoe stores, but as far as is known no effort has been made to educate the public toward that danger. The problem of silicosis has been given sporadic attention in Kansas, but in view of official statements to the effect that silicosis can definitely be prevented our efforts have not been entirely successful. The same things might be said about toxic substances, gases, and all the other problems pertaining to the subject.

Perhaps the greatest immediate need is to interest physicians in industrial medicine. It may be that the profession could encourage the medical school to offer work in this field whereby men doing industrial work could receive graduate education. The problem does not appear any longer to be one of convincing either industry or labor. It is rather a question of providing those groups with sound professional guidance. The Committee on Industrial Health of the Kansas Medical Society is planning now toward projects along these lines. The response from industry and from labor has been encouraging. The committee now needs the help of the medical profession and will appreciate any suggestions or advice from anyone who agrees that the medical profession has a responsibility toward improving the working conditions in the industrial establishments in this state.

Auxiliary Needs Physicians' Support

The Woman's Auxiliary to the Kansas Medical Society is now composed of 818 members. The Kansas Medical Society roster is 1675. There need not be this great difference in membership. The Auxiliary exists principally for public relations. For that reason physicians' wives should be well in-



in congestive heart failure . . .

"Aminophyllin may be given in the form of rectal suppositories (0.25 to 0.5 Gm.) or intravenously (0.24 Gm. in 50 cc. of fluid, 0.48 Gm. in 100 cc. of fluid), both for its diuretic effect and for its bronchodilating action, which relieves dyspnea."[1]

SEARLE **AMINOPHYLLIN***

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G. D. Searle & Co., Chicago 80, Illinois

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

SEARLE

Research in the Service of Medicine

1. Orgain, E. S.: The Treatment of Congestive Heart Failure, North Carolina M. J. 8:125 (March) 1947.

*Searle Aminophyllin contains at least 80% of anhydrous theophylline.

formed and should be working quietly wherever they go. They are represented in many organizations such as the Parent Teachers' Association, women's clubs, church groups and others. The Auxiliary supports the American Medical Association's ten-point plan for health legislation, but do the wives know those plans?

Wives of members of the Kansas Medical Society may be members of county Auxiliaries or they may be members-at-large. The individual member is her own judge as to the amount of time and effort she gives to the organization; dues are a small item. It is by the combined effort of well informed, deeply interested women that much can be done to promote progress in the field of health education.

The Auxiliary is not a new organization but one that has proved "tried and true." Every doctor is urged to ask his wife to be a member of the Auxiliary.—*Mary Alice (Mrs. Charles H.) Miller, Chairman of Organization.*

Dinner Honors Dr. Nesselrode

The many services rendered by Dr. C. C. Nesselrode, Kansas City, during his years of work in the field of cancer were recognized by the Board of Directors of the Kansas Division of the American Cancer Society at a dinner meeting held at the Allis Hotel, Wichita, on October 27. The dinner honoring Dr. Nesselrode followed a business session of the board.

Dr. Nesselrode, one of the pioneers in the field of cancer work, has served on the board of directors of the American Cancer Society since its founding and has also been president of the Kansas Division since its organization. In addition, he served as chairman of the Kansas Medical Society's first Committee on the Control of Cancer, which, it is believed, was the first committee of its type in the United States.

Mr. W. Laird Dean, chairman of the Executive Committee of the Kansas Division, was toastmaster at the dinner. Dr. R. H. Riedel, Topeka, gave the principal address, "Our Continuing Task." Short talks were also made by Dr. H. E. Snyder, Winfield, who represented the medical profession, Mrs. J. E. Johntz of Abilene, Mrs. David S. Long of Harrisonville, Missouri, and Dr. Nesselrode.

The new officers of the Kansas Division, elected at the business session, are: president, Dr. H. E. Snyder, Winfield; vice president, Mrs. Tom Stewart, Wellington; secretary, Mr. J. W. Kirkpatrick, El Dorado; treasurer, Mr. J. D. Bjorkman, Kansas City; chairman of the Executive Committee, Mr. W. Laird Dean, Topeka.

Heart Committee Sponsors Courses

On Thursday, October 28, a four-day advanced course on heart was concluded at Emporia. Dr. David Scherf of New York City was the guest speaker throughout the period, delivering lectures, conducting clinics and participating in clinical pathological conferences.

To facilitate discussion, attendance was limited to 45 and sufficient interest was shown among Kansas physicians that many requests for reservations arriving after the quota had been filled had to be rejected. Members present reported the success of this meeting with enthusiasm and have already begun planning for another course to be conducted a year from now.

This is one of two major projects planned by the Committee on the Study of Heart Disease. This four-day course was designed to interest members specializing in the care of heart patients. Each hour of the day and evening throughout the session was filled, including a banquet on Wednesday evening at which Dr. Franklin Murphy, dean of the School of Medicine at the University of Kansas, was the guest speaker. Others participating during the clinical pathological conferences were Dr. H. R. Wahl, head of the Department of Pathology at the University of Kansas, and Dr. A. A. Fink, pathologist at Topeka.

A second project of the Committee on the Study of Heart Disease will be a one-day heart conference designed to be of interest to every physician in the state of Kansas. This All-Kansas Cardiac Conference, which is expected to attract 300 physicians, will be sponsored jointly by the Committee on the Study of Heart Disease and Winter Veterans Administration Hospital at Topeka.

Those who attended the first annual conference of this kind held at Winter Hospital last winter will look forward to this meeting. Those who were not present will recall the favorable comments following that session. There will be no registration fee. The only expense involved will be that of meals and hotel charges. The date of the conference has not yet been set, but the committee plans to have it soon, probably in December. Members of the Kansas Medical Society will be advised as soon as definite plans are formulated.

New Series in the Journal

In this issue the Journal introduces a new feature which will be continued in all future issues and will undoubtedly be one of the most popular sections of the publication, a series of case reports from clinics and conferences at the University of Kansas Medical Center.

From the abundance of scientific material presented at the weekly Tumor Clinics and the weekly Clinical Pathological Conferences at the medical center, those in charge of the project will select the most interesting cases for publication. At times a single report will be presented, and in other instances, when the presentation of two cases of the same type will add to the value of the discussion, the section will be expanded to carry more than one report. Two cases, similar in type, are published in this issue.

Dr. Robert E. Stowell, professor of oncology and pathology at the university, will edit the reports from the Tumor Clinics. Formerly with Washington University at St. Louis, Dr. Stowell came to Kansas last summer when the department of oncology was established and a large scale cancer research and teaching program was inaugurated at the university. Reports from the Clinical Pathological Conferences will be edited by Dr. Mahlon H. Delp, associate professor of medicine. Dr. James B. Weaver, head of the Orthopedic Section at the university, an associate editor of the Journal, planned and arranged the series.

Several of the larger medical journals in the United States carry reports from clinics and conferences, and many Kansas physicians have expressed an interest in this type of material. The members of the Editorial Board are pleased to have an opportunity to present this series and are grateful to those at the University of Kansas Medical Center who are cooperating in the project.

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**Reprints on Request:

Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32,241; N. Y. State Journ. Med., Vol. 35, 6-1-25, No. 11, 590-592.

MEDICAL CARE IN RURAL KANSAS
THE PROBLEM AND ITS PROPOSED SOLUTION

Franklin D. Murphy, M.D., dean of the School of Medicine of the University of Kansas, has prepared a three-point program designed to improve the school and to permit this institution to render a greater service to physicians and to the people of this state. Dr. Murphy has presented his program before numerous organizations where it has been enthusiastically received. He spoke before two recent meetings sponsored by the Kansas Medical Society, the Conference of County Medical Society Officers on September 26 and a meeting of the officers and Council on October 3. On both occasions a unanimous expression of approval was given Dr. Murphy, and the Council pledged him the support of the Society in accomplishing the aims he described.

Because of unusual interest exhibited by the medical profession in this subject, the Editorial Board requested and obtained permission from Dr. Murphy to publish his paper, which follows:

The United States is faced with a serious shortage of properly trained medical personnel. Doctors, nurses and medical technicians of all types are in very short supply. For example, estimates of the physician shortage in this country by 1960 range from 15,000 to 30,000, the latter being the figure of the Surgeon General of the United States Public Health Service. The reasons for this shortage are various but include expanded health services, governmental services such as the Veterans Administration, modern methods of early diagnosis, longer life span, and the cumulative results of underproduction of personnel in the past 25 years.

The situation in rural areas is particularly acute and all authorities recognize the shortage of adequate medical care in rural communities to be our most pressing national health problem. The rural shortage is due to several factors, including overspecialization by physicians, desire to be near centers where postgraduate training is available, and, most important, local lack of adequate facilities with which to practice modern medical techniques.

The situation in Kansas mirrors the national picture but in some respects is more severe due to the essential rural nature of the state. It comes as a shocking surprise for many to know that in 1906 with a population of 1,544,968, Kansas had 2732 physicians; in 1948, with an increase in population to over 1,900,000, the number of physicians had fallen, according to the Kansas Medical Society, to about 1900, excluding those in government service and training. To put it another way, with an increase of 25 per cent in population, the number of physicians in Kansas has not increased proportionately but has actually fallen by 30 per cent. Furthermore, the downward trend has not been corrected.

Another disquieting note is the fact that in 1906, 50 per cent of physicians were practicing in communities of 1500 or less, while in 1942 the figure was 28 per cent. This is explained in part by better transportation and is logical up to a point. It does show the trend, however, from country to city.

The rural shortage becomes actually worse when it is realized that 77 per cent of physicians in rural areas are over 50 years of age, as contrasted with 43 per cent in the cities. Unless this trend is reversed, the situation will continue to deteriorate.

That communities in Kansas are well aware of their health needs is evidenced by requests for physicians from more than 70 Kansas communities which are on file in the office of the Kansas Medical Society, and there are other communities and counties not listed which are known to need one or more physicians.

Furthermore, the state eleemosynary institutions and state hospitals are admittedly in great need of trained medical personnel, and it is generally recognized that the capacity of these institutions should be increased. Small hospitals are being built or increased in size all over the state under the Hill-Burton bill and others will be built. But how useful are these buildings and this equipment without trained and competent personnel to operate them?

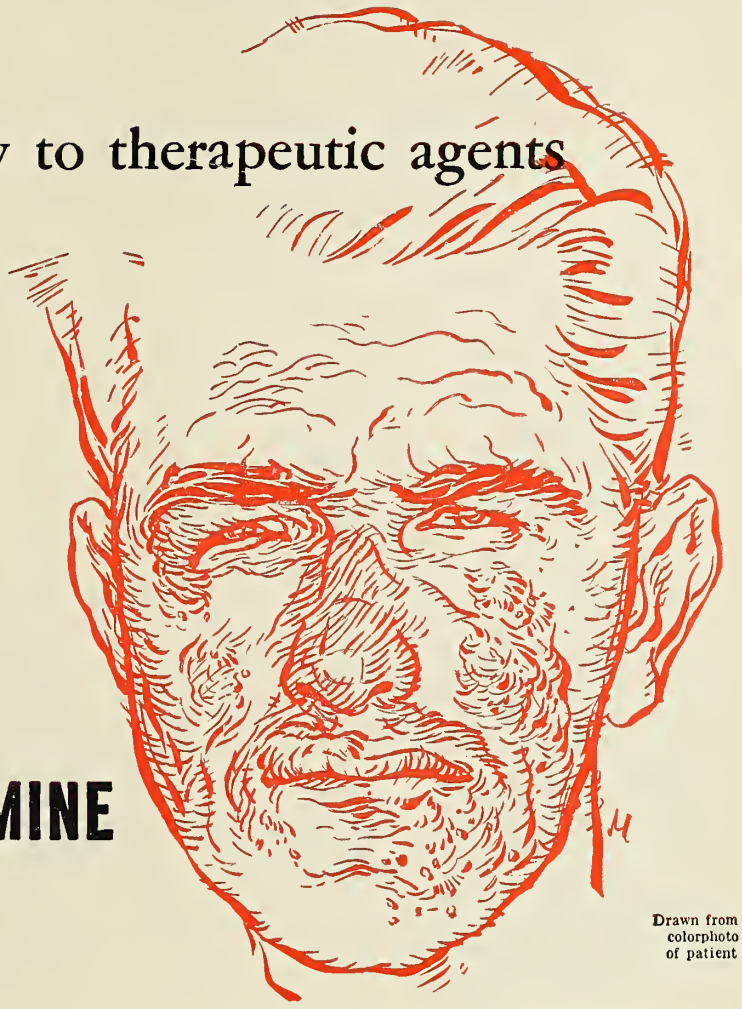
The situation in Kansas, in summary, then, is represented by the facts that in the past 42 years, with an increase of 25 per cent in the population, the state has had a decrease of 30 per cent in the physician population, mainly at the expense of the rural communities. The mean age of the physician in the country is much greater than that in the city, which makes the future even darker for the rural citizen. Finally, over 70 Kansas communities plus the eleemosynary institutions are clamoring for well trained physicians, nurses and technicians, and the small hospitals building program when completed will create an even greater demand for such people. Is there any reason why the rural Kansan and his family should be denied the type of medical care his urban neighbor can and does get? Within the limits of practicality, what can be done in Kansas to correct this inequity and thereby make more complete the life of the rural citizens who make up the majority of our people?

It is recognized that no problem as complex as this can be resolved perfectly and to everyone's satisfaction, but action must be taken and in this case it is long overdue, for the 30 per cent decline in the number of Kansas physicians was not abrupt, but has been occurring over the past 40 years and at an increasingly rapid rate.

The three-point program detailed below is not just the product of one person's thinking but is rather the result of consultation with officials of the Kansas State Board of Health, the Kansas Medical Society and its Committee on Rural Health, officials of the American Medical Association, physicians young and old in the practice of medicine in Kansas, and medical students. Further thoughts were obtained by a study of reports of the United States Public Health Service and the National Committee on Rural Health.

It should be pointed out that physicians of this country and in this case, of the state of Kansas, do have an interest in a progressive and constructive program designed to bring better health care to all of the people of Kansas. A demonstration that the people of this state can solve their health problems themselves will be further proof of the adequacy of our free enterprise system of government.

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PROPOSED PLAN

Point I.

The foundation on which any program for medical care must be built is an adequate supply of raw material. The first point in this program is, then, increased production—doctors, nurses and medical technicians of all types—to make up for an underproduction over the past 30 years as well as to take care of the normal attrition of practicing physicians in Kansas, which is apparently increasing.

The University of Kansas School of Medicine is the major source of physicians for Kansas. The school, though administratively a part of the University of Kansas, is in fact, the medical school for all of the institutions for higher education in Kansas. For example, in the last pre-war class (1940), there were 10 students who had done all their college work at the University of Kansas; 22 were from institutions other than the University of Kansas. The remaining members of the class had done their pre-medical work at the University of Kansas and one or two other colleges, and in most instances had attended the other college longer than the university. This class of 69 students represented 21 different Kansas colleges. In other words, the medical school serves all the colleges of Kansas and, through them, all of the people in all sections of the state.

The authorities of the School of Medicine are confronted with the continually frustrating situation of finding at one end of the line many fully qualified young Kansans who desire to study medicine and who also wish to practice medicine in Kansas. For example, this year after the admission of a class of 80, there remain 86 fully qualified Kansans on the waiting list who cannot possibly be admitted to the medical school. At the other end of the line we find a pressing need for doctors, nurses and technicians in Kansas. The bottleneck, the reason why this raw material cannot be converted into the finished medical product, is the limitation of physical facilities in the medical school. It must be remembered that the medical school operates under criteria laid down by the Council of Hospitals and Medical Education of the American Medical Association. It is this agency that gives the school its accredited rating. This agency is not just perfunctory but actually has teeth, as was manifested when a neighboring mid-western medical school was put on probation in 1947 for not having enough teaching hospital beds per student per class. Among the criteria under which the school must operate is, for example, the request that there be at least eight teaching hospital beds per student per class. For a class of 100 students operating on the quarter system so that there would be 75 students in residence at any one time, this would demand 600 beds for undergraduate teaching alone. Another 150 beds would be required to carry out postgraduate obligations. This means, then, that if the School of Medicine is to do the proper job for Kansas, it must count on an ultimate bed capacity of 750 to 800 beds, of which it will have about 500 by July 1949. In addition, there must be adequate student laboratory space in each of several different departments. If the bed capacity is increased, there must be additional service and maintenance facilities, and adequate housing for nurses and student nurses must be provided.

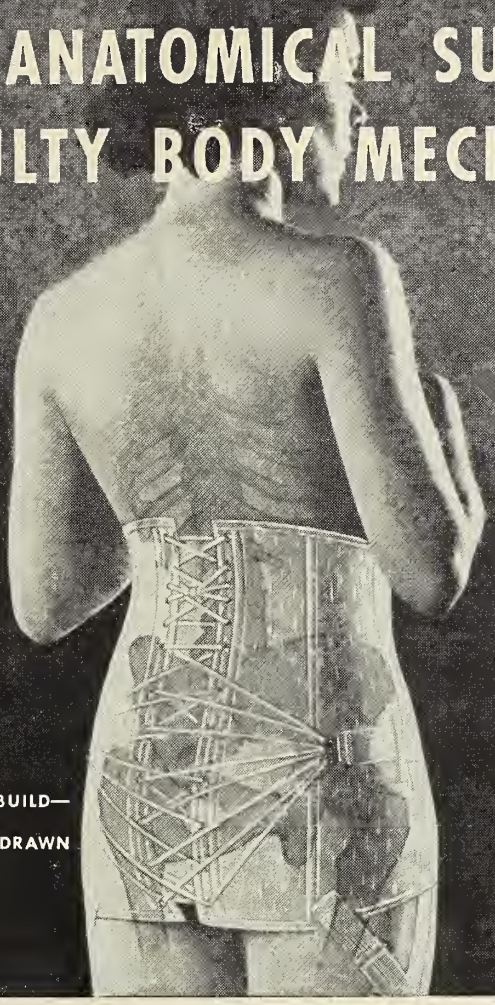
In order to maintain its accredited rating and still handle a class of 80 students a year, the medical school has gone on a quarter system, whereby the plant of the medical center is in use the year around. In other words, the medical school is straining its present physical facilities and faculty to the utmost in order to graduate 80 students per year. If the problem of rural health care in Kansas is to be attacked, the medical school must graduate at least 100 students per year, to say nothing of more nurses and medical technicians. There is absolutely no means by which the school can increase its student load and maintain its accredited rating without increasing its physical facilities and augmenting its faculty.

It should be stated at this point that the school fully recognizes its obligations to train men for general practice in Kansas, and drastic changes have been made in the curriculum this year with an eye to emphasizing general or family practice as opposed to specialization. However, the intensity of this general practice-type training is again limited by the lack of adequate facilities in such divisions of the medical center as the Outpatient Department. The members of the faculty of the School of Medicine are increasingly striving to re-dignify the general practitioner, who, after all, makes up the backbone of rural practice.

Point II.

Once having produced enough physicians, it becomes necessary to see that an adequate percentage of the young doctors go to the places where they are most needed, i.e., the rural areas. Detailed questioning of medical students and recent graduates of the School of Medicine clearly indicates that the major deterrent to settling in a smaller community is the local lack of equipment and office space with which to practice modern medicine. The small hospital building program will help in part, but it must be remembered that 80 per cent of a doctor's practice is in and from his office. It, therefore, becomes necessary to see that the young doctor can have adequate office space and equipment. The medical school graduate, due to his long and expensive course, is frequently in debt at the time of his graduation. He is naturally very reluctant at this stage to pyramid that debt still higher by building or remodeling for office space or by purchasing expensive medical equipment. It is, therefore, suggested that each community, to attract and maintain a doctor, raise the funds necessary to provide adequate office facilities, including office, examining rooms, reception room, small diagnostic x-ray laboratory and small clinical laboratory. This would be a community project and would have the added advantage of giving every citizen in the community a stake in the health of the community. A young doctor, then, fresh from modern medical training, would settle in this community, paying a fair rental for office space and equipment out of current income, and be able to start to work with the type of tools he has been taught to use. At the end of two or three years, if the community is satisfied with the doctor and he with the community, he would begin to amortize the equipment, probably at no interest, for, after all, the community would not be interested in making money but rather in providing itself with good health service. At the end of a few years, the young doctor would be sole owner of the equipment but would continue to rent office space from the community. If it seemed desirable, the doctor could also buy the office space. There is no reason why this arrangement would not work for more than one physician. For the average small community, $15,000 would probably suffice to provide a modern facility. It is felt that this is a small investment for a community to make in its health, since the dividend is good medical care provided by a young man trained in the most modern medical techniques. Furthermore, a portion, or all, of the money will ultimately be returned to the community by the doctor. With such a program, then the community provides the magnet which will draw a young doctor to the area where he is most needed. This, of

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course, is a mutually benefitting plan because the doctor is able to begin practice immediately with the modern diagnostic tools which he has been taught to use in medical school and with no serious immediate financial hardship. The community, on the other hand, benefits not only in the acquisition of a physician, but also assures itself of up-to-date methods in the diagnosis and treatment of disease.

It should be noted in passing that certain states and national foundations have tried to attack this problem of distribution by setting up scholarships which obligate the young man to return to a specified area to practice. This concept is wrong in principle for it does not answer the reason why the young man is reluctant to go to a rural area. It is simply a method of compulsion and leads to no better medicine and certainly not to satisfaction on the part of the physician. Many of these attempts have met with failure. For example, of 142 medical students who had received scholarships from the Commonwealth Fund on the condition that they practice at least three years in small towns, only two went permanently into the type of community that most needed their services. The scholarship plan may have a place in the over-all program of rural medical care but it is certainly not the complete answer for it does not strike at the heart of the problem.

Point III.

One of the most frequent objections given by medical students and young medical graduates against practicing in remote rural areas is the fact that they feel they will become medically isolated if they settle too far from the cities and medical centers. That is to say, they are reluctant to remove themselves from the opportunities of seeing and learning about the new advances in medical diagnosis and treatment. They desire to maintain professional excellence and feel that it is less possible in a remote rural community.

The answer to this objection is an intensive program of postgraduate medical education. The Medical School of the University of Kansas in conjunction with the Kansas Medical Society and the State Board of Health has already initiated plans to build an adequate postgraduate program in medical education, and early experience demonstrates an enthusiastic response from practitioners of medicine in Kansas for this type of training.

The program consists basically of three different but complementing types of training:

(a) The short refresher course which consists of a two or three-day program given at the University of Kansas Medical Center. Each program relates to one field of medicine, i.e., surgery, internal medicine, etc. Guest instructors are chosen from the leading men in their respective fields throughout the United States. The remaining instructors are made up by members of the faculty of the medical school and leading practitioners of medicine in Kansas.

In the year 1947-48, courses were given in ten different subjects with a total enrollment of 583 doctors and 211 nurses and technicians. These refresher courses have become an annual part of the medical school curriculum and the enrollments have increased yearly.

(b) In the past few years, circuit courses have been carried out in one or two fields of medicine each year. It is contemplated that this year, there will be set up six circuit courses covering at least 12 separate topics in medicine and surgery. Cities in Kansas will be chosen for their strategic geographic location, and teams of instructors, made up of members of the faculty of the medical school and qualified practitioners of medicine in Kansas, will travel from one city to the next giving the newest and most practical information in diagnosis and treatment of specific medical problems. In the beginning, at least six Kansas cities will be covered by this circuit. Here, then, in the form of an extension program, the medical school is bringing education to the doctor rather than making it necessary for the doctor to come to the medical center.

(c) The third and possibly the most important part of the postgraduate program cannot yet be initiated because of limited facilities. This consists of setting up a formal type of training program in the medical center and medical school which would allow the man in general practice to return to the medical center for several weeks at a time and as often as every three to five years. The general practitioner takes care of from 80 to 90 per cent of the nation's illnesses. Yet there is no type of postgraduate facility in which he can actually work, participating in bedside instruction, attending clinics, lectures, conferences, etc. Formal graduate medical education has been from time immemorial the almost exclusive property of the specialist. If this third point in the postgraduate program can be achieved, it will make it possible for the man in general practice, i.e., the rural practitioner, to have the same opportunities for maintaining his professional excellence as the specialist. In order to provide this in-residence experience for the Kansas doctor, at least 100 to 150 hospital beds are needed, to say nothing of the laboratory space which he would utilize.

Once the facilities are available to set up this complete postgraduate medical education program, the student entering the medical school of the University of Kansas will be told upon his admission and told repeatedly throughout his four years of medical work that he is entering upon a 40-year educational program, only the first four years of which end with his graduation from medical school. He will leave the medical school feeling not only the desire but the obligation to participate in postgraduate medical education and will, furthermore, see that he has the opportunity to do just that in his medical school until the day he dies or retires from practice. He will further see that this training experience will be worthwhile and satisfactory because the proper facilities and staff are available to provide it. Thus the young doctor on entering a remote rural practice begins his professional life with the full understanding that the state medical school is keenly interested in his maintaining professional competence and the further understanding that instead of being medically isolated, he actually is in continual contact with the newest advances in medical diagnosis and treatment. The people of Kansas, on the other hand, through this mechanism are assured of the best medical care, both present and future, no matter whether they live in the city or in the country.

SUMMARY

This over-all program, then, is designed to resolve the medical personnel shortages in Kansas, and particularly in the rural areas, and at the same time guarantee all of the people of Kansas the best possible medical care all of the time. In other words, the plan is designed to produce enough doctors, nurses and technicians for the people of Kansas, their hospitals and their state institutions. It is further designed to bring the young medical graduates to those areas of the state where they are most needed, and it is finally designed to continually guarantee the people the benefit of the most up-to-date medical knowledge and equipment which is available.

Point No. I, the personnel shortage, can be attacked only,



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as explained above, by a sharp increase in the physical facilities of the Kansas medical school.

Point No. II will be approached through various state agencies and by direct contact with communities. Recent experience with two communities in Kansas makes it clear that this program can be effectively implemented by the community.

Point No. III, postgraduate education, has already been initiated but its expansion to a point to which it can be effective again means expansion of the medical school facilities.

The ultimate expansion of the medical school and medical center to a size to carry out all of the teaching obligations, undergraduate and postgraduate, will require the eventual expenditure of between seven and eight million dollars in terms of present-day construction costs. However, the expenditure of approximately four million dollars will allow the medical school to start immediately to increase its graduating classes by 25 per cent and its nursing classes by 50 per cent. The graduation of medical technicians in other fields can also be correspondingly increased. This will also allow for a substantial start in the in-residence postgraduate training program. The four million dollar expenditure includes an increase in the number of hospital beds by 275. Seventy-five beds would be gained by an expansion of the negro hospital, 100 beds by the construction of a state hospital facility for the diagnosis and treatment of chronic chest diseases, and 100 beds by the construction of a facility for neuropsychiatric patients. Both of the latter two facilities are needed by the state for the care of patients and a third of the cost of each is already now available in the form of a federal contribution.

In addition to these units which increase the hospital capacity, there must also be construction for a sharp increase of the service facilities of the teaching hospital, such as clinical laboratories, kitchens, dining rooms and quarters for interns and residents. This is an undramatic and unemotional phase of building but is absolutely essential if a teaching institution such as the medical center is to function with any efficiency whatsoever. A large addition to the nurses' home is needed, and an adequate and properly located building for the teaching of pathology, pharmacology and bacteriology is long overdue. Finally, in order to give proper training for general practice as well as to provide proper postgraduate training, there must be an increase in the size of the out-patient clinics.

Other construction, such as a library and auditorium unit, units to house the medical departments which are now located in Lawrence, additional hospital beds, and student dormitories can be deferred but will ultimately be necessary.

In other words, then, with a four million dollar increase in its physical plant, the medical school can immediately begin to graduate 100 doctors per year and many more nurses and laboratory technicians, and at the same time carry out an intensive program of postgraduate medical education. If the school is to do the above-described job, maintain its accredited rating, do justice to the students, and function in even a half-way efficient fashion, it must have all of the additional facilities included under the four million dollar program.

The facts given in the introduction of this statement should make it clear to every Kansan that there is an increasingly serious problem in this state so far as good medical care is concerned and that, furthermore, the rural citizens who make up the majority of the population of the state are most affected. There is no shortcut to the production of personnel to give good and proper medical care. The substitution of second rate or poorly trained people is not the answer, for, very often, to improperly handle a human illness is worse than not handling it at all. The people of Kansas must decide if they wish to reverse those unfortunate trends in medical care which, it must be reemphasized, are becoming more serious rather than better. If they choose to remedy the situation, the above program is respectfully suggested as the only practicable way to attack the problem. In the body of such a program lies the opportunity for the state of Kansas to set an example for the other essentially rural states of the Union and thereby reflect great credit on itself while at the same time guaranteeing all of its people the best in medical care.

COMPARATIVE LEGISLATIVE APPROPRIATIONS
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UNIVERSITY MEDICAL SCHOOLS INDICATED

Current Appropriations	*Iowa*	*Colorado*	*Minnesota*	*Wisconsin*	*Ohio*	*Kansas*
Appropriation for School.....	$ 900,000.00	$ 327,800.00	$ 800,000.00	$ 690,000.00	$ 666,418.00	$626,000.00
Appropriation to Hospital.....	2,278,500.00	910,750.00	1,266,000.00	450,000.00	500,000.00	
	$3,178,500.00	$1,238,550.00	$2,066,000.00	$1,140,000.00	$1,166,418.00	$626,000.00
Number of Hospital Beds.....	900	350	450	750	314*	395

*Recent appropriation of $10,300,000 for building additional new University Hospital facilities.

New Councilor in Second District

Dr. Albert J. Rettenmaier, Kansas City, was named councilor of the Second District at a meeting of the Council of the Kansas Medical Society held on October 3. Dr. Rettenmaier will serve for the unexpired portion of the term of the late Dr. L. G. Allen, Kansas City. Dr. Allen, who was re-elected councilor for a three-year period at the Council meeting held early in May, died May 28.

Award for Psychiatric Aide of the Year

The National Mental Health Foundation announces that judges have been named to select the "Psychiatric Aide of the Year" and that all nominations, from mental hospitals throughout the country, should be entered in the contest before November 13, 1948. The winner, to be announced in January, will receive $500 and an appropriate citation. The winner of last year's contest was Walter Starnes, an aide at Winter Veterans Administration Hospital, Topeka.

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BIBLIOGRAPHY: 1. United States Dispensatory, ed. 24, Philadelphia, J. B. Lippincott Company, 1947, p. 1446. 2. Wiesbader, H., and Filler, W.: Am. J. Obst. & Gynec. **51**:75, 1946. 3. Allen, W. M.: South. M. J. **37**:270, 1944. 4. Lyon, R. A.: Am. J. Obst. & Gynec. **47**:532, 1944. 5. Groper, M. J., and Biskind, G. R.: J. Clin. Endocrinol. **2**:703, 1942. 6. Soule, S. D.: Am. J. Obst. & Gynec. **45**:315, 1943.

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CASE REPORTS FROM THE UNIVERSITY OF KANSAS MEDICAL CENTER

Edited by R. E. Stowell, M.D., and E. B. Taft, M.D.

TUMOR CLINIC CASE NO. 48-21

History: E. F. H., a 43-year-old white woman, was admitted to the University of Kansas Medical Center on July 16, 1948, and dismissed August 5, 1948. She had had two previous admissions. Her first was from February 15 to February 26, 1937, on the Gynecology Service. Her chief complaints at that time were obesity and excessive menstrual flow. Her diagnosis was endometrial dysfunction and hypopituitarism. She was treated with blood transfusions and anterior and posterior pituitary extract. Her second admission was from April 10 to April 23, 1939. She was admitted for the same complaints of excessive menstrual flow and obesity. She weighed 264 pounds, a gain of 13 pounds since her first admission. While in the hospital she was given 500 cc. of blood, and also pituitary extract. She was dismissed from the hospital on a regimen of anterior pituitary extract and thyroid extract, and was placed on a 1000 calorie diet. No definite diagnosis was made, although arrhenoblastoma, adrenal cortical tumor, and hypopituitarism were considered. Her blood pressure ranged from 140/100 to 160/110.

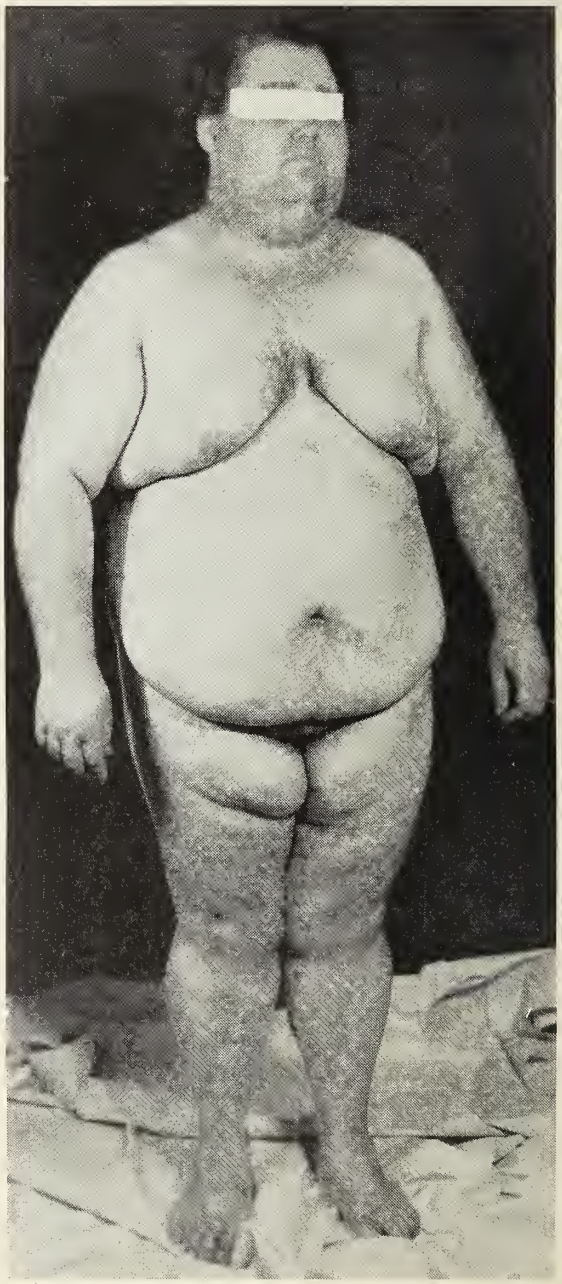
Present Illness: In April of this year the patient first noted swelling in the left lower quadrant of her abdomen. It was associated with lower abdominal cramps, and she thought she was having gallbladder attacks at that time. The swelling gradually increased so that on admission her abdomen was markedly distended, and she was moderately dyspneic.

Endocrine History: She has had hirsutism since the age of 18 which necessitated shaving every other day. She has had a buffalo type obesity since childhood. Her menarche occurred at the age of 11. She has had irregular menstrual periods, on occasion one to one and one-half years apart. She has had episodes of severe menorrhagia. From 1935 to 1939 she had nearly constant bleeding, most marked for nine months in 1939. She has never been pregnant. Her last menstrual period began three weeks ago and was associated with pain in the left side.

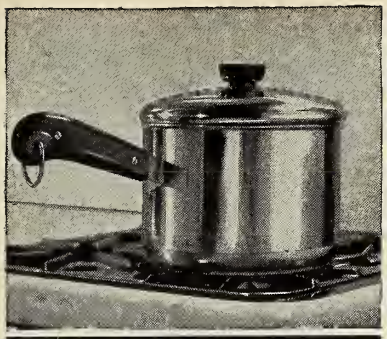
Family History: She has a bearded female third cousin.

Physical Examination: Blood pressure 160/102; pulse 128; weight 222 pounds; and height 5′1″. The patient was not acutely ill. She was dyspneic and more comfortable in an orthopneic position. There was a male distribution of hair over her face, chest, back, legs, and arms. She had marked obesity of her trunk. Her abdomen was distended, apparently more so in the lower half. There was tympany at the sides of the abdomen, and dullness centrally when she was lying on her back. No fluid wave was elicited.

Laboratory Studies: Urine analyses were essentially normal. The red blood cell count was 4,700,000; hemoglobin 74 per cent; white blood cell count 30,000, with 91 per cent polymorphonuclear leuk-



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ocytes, 80 filamented, 11 non-filamented, eight lymphocytes, and one monocyte. Blood Wasserman and Kahn were negative. Blood cholesterol was 328; total proteins 7,380 with normal albumin-globulin ratio; non-protein nitrogen 28; creatinine 1.1; and sugar 64 mgm. per cent. Her blood sedimented to 25 mm. in one hour. The electrocardiogram showed "sinus tachycardia with a rate of 115, levorotation, mild myocardial change perhaps reflecting fatigue secondary to the tachycardia." By x-ray examination the sella turcica was essentially normal. A chest film showed fluid up to the seventh rib in the right mid-axillary line. Barium meal evidenced a circumscribed mass in the abdomen that displaced the stomach and small intestine about its periphery.

Hospital Course: On July 21, 1948, 600 cc. of sero-sanguinous fluid were removed from the right chest. On July 25, 1948, 700 cc. more of similar fluid were withdrawn. The first fluid showed 155,000 rbc/cu.mm., sp. gr. 1.020, and total protein 4.68 gm. per cent. The pathological report of the first fluid was "few atypical cells," and on the second, "epithelial cells suggestive of malignancy." On July 18, 1948, the patient was seen in consultation by the Gynecological Service, and on July 22, 1948, by the Surgical Service. Findings of an ovarian cyst and fluid in the chest suggested the possibility of Meigs's syndrome. She was transferred to Surgery, and on July 26, 1948, a bilateral oophorectomy and complete hysterectomy were done. At operation, two large ovarian cysts were found, each measuring approximately 15 x 20 cms. The uterus was three to four times normal size. On exploration of the kidney regions, it was thought that possibly the left adrenal might be somewhat enlarged. The right adrenal was not felt. There was a small stone in the gallbladder. Congestion of the peritoneum was associated with slight ascites.

The patient's postoperative course was uneventful. Her thorax cleared of fluid soon after the operation, she was started on x-ray therapy, and she was dismissed from the hospital on her tenth postoperative day.

Dr. Hamilton: This surgical specimen is one of the better examples of cystic carcinoma of the ovary that we have seen. In sections of the ovary one can see cystic areas with adjacent solid tumor. The tumor has a papillary glandular pattern. Occasional vacuolated tumor cells evidence secretory activity. Careful search of sections of both ovarian tumors did not reveal areas compatible with arrhenoblastoma or adrenal-like tissue. In the uterus two pathological changes were found. There was an adenocarcinoma of the endometrium which extended to involve all sides of the internal cervical os. In addition the wall of the uterus was diffusely thickened and involved with masses of firm, whorled tissue which on section showed foci of endometrial glands and stroma, typical of adenomyosis uteri or endometriosis of the myometrium. The adenocarcinoma has an entirely different pattern from that seen in the ovaries. The pathological diagnoses were: adenocarcinoma of the uterus, adenomyosis of the uterus, bilateral papillary cystadenocarcinoma of the ovaries with necrosis.

DISCUSSION

Dr. Stowell: Dr. Gianakon, do you have any ideas as to why there was fluid in the right pleural cavity?

Dr. Gianakon: The possibility was discussed that she might have Meigs's syndrome.

Dr. Stowell: If she had a Meigs's tumor, how do you account for the fluid?

Dr. Gianakon: I don't know. Dr. Orr is a personal friend of Dr. Meigs—he might know.

Dr. Stowell: Does your personal friendship enable you to answer that question, Dr. Orr?

Dr. Orr: It is my impression that Dr. Meigs himself cannot answer that question. I don't believe, however, that the type of tumor found in this patient has produced that sort of syndrome. It occurs with fibromas of the ovary rather than with adenocarcinomas. It is an interesting relationship and naturally we thought of the possibility as soon as we found fluid in the chest. The only difficulty was that the fluid in this case was bloody, which is unusual in Meigs's syndrome, and this made us think more of metastasis to the pleura. We do not know yet whether that was the cause of the appearance of the fluid. It apparently cleared after the removal of the pelvic organs.

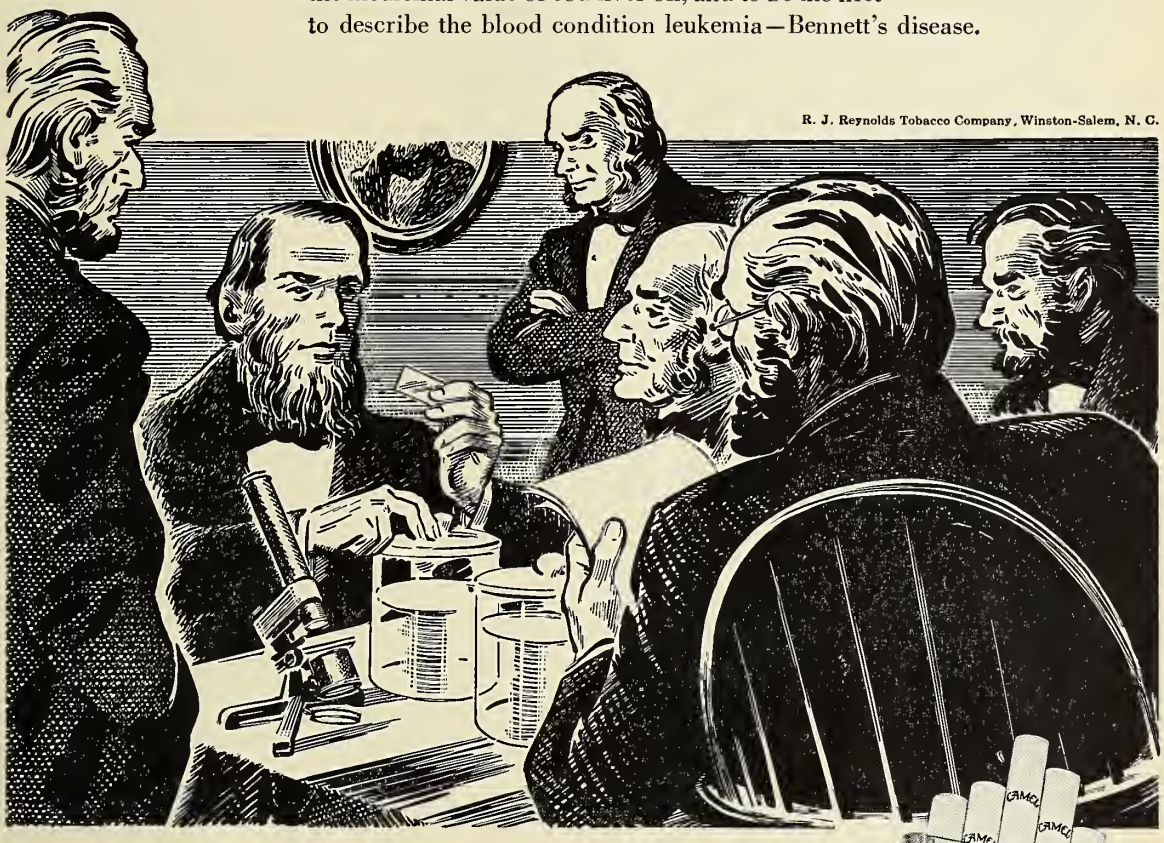
This patient is an interesting diagnostic problem, not only from this standpoint but also from that of her abdominal mass and her hirsutism. She has told us of periods of menorrhagia and of amenorrhea. Perhaps we did not pay sufficient attention to that part of her history because we felt that it was associated in some way with her hirsutism. This change in turn might have been associated with tumor of the ovary or of the adrenal cortex. Prior to operation we could not outline the uterus on physical examination because of the abdominal mass and because of her obesity. At operation there was no evidence of spread of tumor in the abdomen. Palpation of the adrenals in this fat woman was difficult, but I thought I could feel some thickening in the region of the left adrenal. I could not feel the right adrenal. The enlarged uterus was firm and I suspected that it contained leiomyomata so it was removed. I was quite surprised when the pathological diagnosis was adenocarcinoma. The patient is at present taking x-ray therapy. I suspect that her prognosis is quite good.

Dr. Clark: May I ask the possible significance of

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the cells which were found in the chest fluid?

Dr. Hamilton: There were atypical cells in the sediment of the chest fluid from this patient. They had dark hyperchromatic nuclei. No mitoses or suggestions of acinar formation were seen. Thus, although the cells were not frankly malignant, they were compatible with cells from metastatic carcinoma.

Dr. Clark: In view of this finding I should like to question the justification of the extensive operation performed on this patient. Certainly if there were frank tumor cells in the chest fluid, I should think the prognosis would not be good. It would seem to me that whether or not these were tumor cells would have considerable bearing on the extent of the operation performed.

Dr. Stowell: The Pathology Department has said that the cells in question were suggestive of tumor cells. I do not believe that a diagnosis of malignancy was made on this sediment. Dr. Wahl, are not cells sloughed from the pleural surface at times difficult to distinguish from malignant cells?

Dr. Wahl: The only thing I can say with certainty about these cells is that many of them were degenerated. This does not mean that they were tumor cells, although desquamated pleural cells usually have a different appearance from tumor cells. However, one likes to see an atypical mitosis or an abnormal nucleus in such cells before one makes the diagnosis of malignancy. Most tumors grow beneath serous surfaces and the reaction they produce in the cavity is not necessarily manifest by the exfoliation of tumor cells.

Dr. Stowell: The positive diagnoses of tumor cells in pleural fluids by competent pathologists are over 90 per cent correct. On the other hand, a negative diagnosis on fluids from one of the body cavities is not conclusive evidence that the patient does not have a tumor, even one involving the serosa.

Dr. Clark: I think one must keep these aspects in mind so that when one operates one knows pretty much what one is going to do. Dr. Orr, I am sure, operated intending to perform a cure. A positive diagnosis on the pleural fluid might have made us consider only a palliative and perhaps not quite such an extensive operation.

Dr. Wahl: In such types of examination the pathologists are put on the spot. We have to be sure before we make a positive or a negative diagnosis. After all, we are telling you what we see, not what we think you should do.

Dr. Tice: Of course the fact that this woman was more comfortable after she had had her operation would, in general, justify the operation even if it were only palliative.

Dr. Stowell: This brings up the question of the proper treatment of carcinoma of the body of the uterus. If one consults the literature one finds differences of opinion. Gynecologists in Stockholm, Dr. Heyman and others, feel that these tumors are most satisfactorily treated by radiation, whereas others think that they are best treated by surgery. Many feel that they should be treated by a combination of the two. Some favor preoperative radiation; some postoperative radiation; some both. Dr. Tice, what do you think about the radiological treatment of carcinoma of the body of the uterus?

Dr. Tice: I think that the treatment of choice is a combination of radiation and surgery. The diagnosis is best made by curettage. Then radium should be inserted and the patient given x-radiation. After a reasonable period, say six weeks to two months, the uterus should be removed surgically. The radiologists in Stockholm pack the uterus with small capsules of radium to give a uniform and specific dose. They claim good results. However, I think that the combination of radiation and surgery is the most effective.

Dr. Gainey: I believe that it is generally recognized that a combination of surgery and radiation will give the best results in early carcinoma of the uterus. Of course, early carcinoma of the body of the uterus is hard to diagnose and equally hard to classify unless one does it by size. Surgery without radiation may be advisable in tumors of small size. I recall one study in which there was no evidence that the tumor cells in carcinoma of the body of the uterus were affected by radiation. However, I, too, am of the opinion that the combination of radiation and surgery is the most effective therapy.

Student: Were the two ovarian tumors and the uterine tumor considered as three primary carcinomas?

Dr. Wahl: As far as the adenomyosis is concerned, I do not think that it had any connection with the adenocarcinoma of the uterus or with the ovarian tumors. I believe that it is just a coincidental finding. It is my opinion that the tumors in the ovaries are examples of the multicentric origin of some types of tumors, and that the carcinomas arose in the ovaries at the same time. I do not think that one tumor should be considered primary and the other secondary, although some authorities would not agree with me. Approximately 50 per cent of such tumors are bilateral. It seems to be a case of predisposition to tumor formation apparently occurring simultaneously in both ovaries. Thus, I would say that she had two primary carcinomas.

Dr. Gainey: It is my impression that many gynecologists believe that adenomyosis uteri is associated frequently with carcinoma of the body of the uterus. In my experience there is no relationship

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between the two. Does this clinical impression agree with the pathologist's experience?

Dr. Stowell: There is no apparent relationship. In this patient it would seem to be coincidence. There is not even a frequent association.

Another aspect which should be discussed is the endocrinological picture. That this patient with hirsutism should have ovarian tumors and a uterine tumor is of interest. Of course the adenocarcinoma of the ovaries which was found is not the type of tumor frequently associated with hirsutism. She had had hirsutism for many years before the discovery of the tumors. Nevertheless, this patient undoubtedly had a number of endocrine disturbances. Some feel that one of the etiological factors in carcinoma of the uterus may be endocrine imbalance.

Dr. Gainey: This sort of hirsutism in the abcense of an arrhenoblastoma or some other masculinizing tumor, is one of the most difficult types we have to deal with and is the sort for which the present facilities of laboratory diagnosis give but little help. Without 17-ketosteroid studies one is unable to formulate a diagnosis from the information at hand. We have no evidence that there is any alteration of adrenal function. In women over the age of 20 in whom there is evidence of adrenal hyperfunction, one questions the advisability of doing an exploratory laparotomy. Because the hirsutism is usually irreversible, there is some question whether one is justified to attempt surgical intervention, particularly when one realizes that an adrenal tumor may be less than one centimeter in diameter and hence not readily palpated, even at operation. Since there were no steroid studies on this patient, it is difficult to surmise what might be the endocrinological background. In patients such as this with long-standing hirsutism, perhaps the best treatment is surgical epilation of the undesired hair.

Dr. Revere: The patient said recently that she thought her beard was growing more slowly and that her hair was becoming less thick and coarse. It seems also that her hair distribution was changing more toward the female pattern. It is my impression that such hirsutism is ordinarily irreversible.

Dr. Robinson: I should like to know if on her earlier admission, when she came in complaining of menstrual irregularities and before her endocrine study was started, whether a dilatation and curettage was done or vaginal smears were examined?

Dr. Revere: Not to my knowledge.

Dr. Robinson: We frequently hear that patients must be encouraged to seek investigation of possible cancer early in order to effect cures. This woman was under the care of our hospital for 11 years before cancer was suspected. It seems to me that we must do more than to tell the patient to come to us early. Altogether too often the patient consults a doctor and is told that his trouble is all in his mind. Unfortunately, this happens more frequently than we like to admit.

Dr. Orr: This patient had her menorrhagia in 1937, more than 10 years ago. I believe that such a patient who does have menstrual irregularities deserves a curettage. It seems, however, on this admission that every one was so impressed with the hirsutism and the mass in her abdomen that they never suspected that a period of menorrhagia so long ago could have a bearing on her present findings. I do not believe that any one thought of uterine carcinoma; I am sure that I did not. Even in retrospect, I am not sure that such a diagnosis should have been considered, although it is almost certain that she did not have a carcinoma ten years ago.

TUMOR CLINIC CASE NO. 48-22

History: L. L., a 60-year-old white woman, was admitted to the University of Kansas Medical Center on June 23, 1948, and died July 24, 1948. Her chief complaints were intermittent abdominal cramps, nausea, and vomiting for one week. One month prior to admission, the patient had a hysterectomy, which was reported to be an adenocarcinoma of the cervix. One week prior to admission she became nauseated, and had continuous vomiting with intermittent cramping abdominal pain without chills or fever.

Physical Examination: On admission, her abdomen was distended and tympanitic. A hard mass was felt over the symphysis below the operative scar. Rectal examination revealed a moderate amount of fecal material with a hard indurated mass in the midline extending to the left. By pelvic examination, a hard immobile mass was felt in the left parametrium, and there was also a hard nodular mass in the vaginal vault. Speculum examination was not satisfactory.

Laboratory Studies: Clinical laboratory examinations were non-contributory. X-ray studies showed moderately dilated loops of small intestine indicating a partial, mechanical small bowel obstruction. A barium enema evidenced progressive small bowel obstruction of a mechanical nature. The colon proper was normal.

Hospital Course: A diagnosis of jejunal obstruction was made. Exploratory laparotomy was performed on June 30. A loop of jejunum was found completely obstructed by a tumor mass. The intestinal stream was diverted around this obstruction by an entero-enterostomy, since it was feared that excessive hemorrhage would follow incision into the



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tumor mass. A Miller-Abbott tube was left in place to keep the patient deflated, and she was returned to the ward in fair condition. The third postoperative day an unsuccessful attempt was made to clamp the tube. She was maintained on parenteral fluids. Her course was uneventful until her eighth postoperative day, when distention again occurred. She remained on gastric suction until her 22nd postoperative day, her course being progressively poorer. She developed ankle edema, which was interpreted as nutritional in nature. This was substantiated by a relatively low total blood protein. She ceased breathing on her 24th postoperative day.

Dr. Stowell: Dr. Chaney, would you present the autopsy findings?

Dr. Chaney: There were 2000 cc. of ascitic fluid, 1000 cc. of fluid in each side of the thoracic cavity and 75 cc. in the pericardial cavity. The lower lobe of the right lung was heavy and congested. The peritoneal surfaces were covered with exudate. There were hydronephrosis and hydroureter bilaterally. The bladder wall was thickened and hemorrhagic. The body of the uterus and the adnexae were absent. The cervix was firm. The jejunum was dilated. The terminal ileum, the cecum and ascending colon were bound to dense retrocecal tissue. There was no evidence of intestinal obstruction. There were metastases to the cecum, jejunum and lungs.

Dr. Stowell: Dr. Hamilton, have you sections to show?

Dr. Hamilton: A portion of the cervical canal was present in the surgical specimen. There were two endometrial polyps and an area of roughening in the cervical canal which may have represented the base of another polyp or involvement with tumor. The carcinoma appeared to be primary in the fundus. The endometrium uninvolved with tumor does not show much hyperplasia but polypoid change is evident. This was an adenocarcinoma of the fundus with areas of squamous metaplasia. The final anatomical diagnoses included: adenocarcinoma of the uterus treated by hysterectomy and radiation; generalized carcinomatosis of the abdominal cavity; metastatic carcinoma in lungs; and hydronephrosis and hydroureter, bilateral, severe.

Dr. Orr: How often does one see extensive peritoneal metastases from carcinomas of the uterus? I believe that these patients more commonly die with local extension and compression of the ureters and suppression of kidney function. Did this patient have extensive metastases throughout the abdomen?

Dr. Chaney: We found chronic peritonitis as well as evidence of peritoneal metastases. Another important cause of death, however, was the hydronephrosis.

Dr. Wahl: It is much easier to diagnose carcinomas of the cervix than of the fundus. The cervical carcinoma spreads primarily by local extension, rarely to distant organs. The fundal carcinomas are usually adenocarcinomas and distant metastases are more common. Also the combination of squamous and adenomatous elements such as seen in this case are more common in fundal than in cervical carcinomas. The obstruction of the gastrointestinal tract in this patient does not seem to have occurred because of metastasis. In this case the tumor spread resembled that of a cervical rather than a fundal carcinoma.

Dr. Stowell: What about the treatment of the advanced cases such as this, Dr. Tice?

Dr. Tice: In contrast to early cases most advanced cases are hopeless. Palliation can be secured by radiation. Radium is of little value in these cases. In some cases with lesions deep in the pelvis, sufficient radiation to be of any value will cause a severe reaction in the skin. It will usually give some palliation, but only temporarily.

Cancer Conference in January

Arrangements are rapidly being completed for the first annual Mid-West Cancer Conference, to be held at the Broadview Hotel, Wichita, on Thursday and Friday, January 20 and 21, 1949, under the sponsorship of the Kansas Medical Society and the Kansas Division of the American Cancer Society. There will be no registration fee since the expense of the meeting will be borne by the Kansas Division.

The Broadview Hotel is reserving a block of rooms for those attending this meeting, and physicians who wish to stay at the hotel in which the meeting will be held are urged to make reservations immediately. Other large hotels in Wichita are also taking reservations now, among them the Allis and the Lassen.

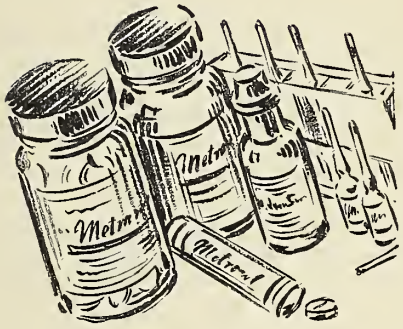
The program for the conference is being arranged by the Society's Committee on Control of Cancer, with Dr. Orville R. Clark, Topeka, as chairman. Eight guest speakers will present two papers each during the scientific program and a ninth speaker, Dr. Charles S. Cameron, medical director of the American Cancer Society, will address the banquet, a feature of the Thursday evening program. There will be one general session each morning and afternoon during the two days, with a round table luncheon each day.

Members of the Woman's Auxiliary to the Sedgwick County Medical Society are preparing a program of interest to women during the two-day period, so physicians who attend are urged to bring their wives. Women will also be welcomed at the banquet and program on Thursday evening.

All physicians in this area, including Kansas and neighboring states, are invited to attend and at least 300 are expected to be present. No other cancer conference will be held in this region during the winter months.

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MEMBERS

Dr. Leslie Saylor, Topeka, was recently elected to fellowship in the American College of Surgeons.

* * *

Dr. Paul H. Lorhan, of the University of Kansas School of Medicine, presented a paper, "The Significance of the Static Indicator," at the annual meeting of the American Society of Anesthesiologists at St. Louis early in November. He also prepared a scientific exhibit for the meeting.

* * *

Dr. C. W. Jones, Olathe, announces that Dr. G. J. Pierron, formerly of Kansas City, Missouri, is now associated with him in practice.

* * *

Dr. L. B. Putnam, Wichita, has enrolled at the University of Minnesota for a postgraduate course in surgery.

* * *

Dr. J. M. Marks, Valley Falls, recently observed his 40th anniversary in the practice of medicine there.

* * *

Dr. Carl Smith, Sedan, announces that his brother, Dr. Kenneth Smith, will be associated with him in practice after December 1. Dr. Kenneth Smith received his medical education at Vanderbilt University and during the past year has been practicing at the Halstead Clinic.

* * *

Dr. Arch J. Brier, Topeka, has opened an office for the practice of internal medicine and allergy.

* * *

Dr. John P. White, Parsons, and Dr. Saul Zizmor, Chetopa, have been appointed to handle selective service examinations in Labette County.

* * *

Dr. O. R. Brittain, who has been practicing in Salina for 44 years, has announced his retirement from active practice. He will, however, continue as consultant emeritus at the Mowery Clinic. Dr. G. Sherman Ripley, Jr., who has been associated with the Presbyterian University Hospital in Philadelphia for the past two years, will take over Dr. Brittain's work at the clinic and will serve as radiologist at Asbury Hospital.

COUNTY SOCIETIES

The regular meeting of the Clay County Medical Society was held October 13 at the Clay Center Municipal Hospital. Dr. S. A. Anderson reported on a meeting of the officers of county medical societies held at Topeka September 26, and also discussed changes in the constitution and by-laws of the National Physicians Committee. Dr. F. R. Croson discussed a meeting of the Council of the Kansas Medical Society held at Topeka October 3. The president was authorized to appoint a committee to nominate the general practitioner of the year for the group.

* * *

A symposium, "Malignant Tumors of the Respiratory System," was presented by the Sedgwick County Tumor Clinic at a meeting of the Sedgwick County Society on October 19. The following papers were presented: "Activities of the Tumor Clinic for 1948," Dr. L. E. Van Zant; "Tumors Involving the Sinuses and Nasopharynx," Dr. D. J. Cronin; "Tumors Involving the Larynx," Dr. N. L. Francis; "Tumors of the Nasopharynx, Hypopharynx and Larynx," Dr. E. M. Seydell; "Tumors of the Lung," Dr. P. H. Wedin; "Summarization of Tumors of the Lung," Dr. A. L. Ashmore; "Summarization of Tumors of the Respiratory System," Dr. J. S. Hibbard. General discussion was led by Dr. A. E. Hiebert.

* * *

The Shawnee County Society met October 4 at Topeka. Dr. Carl A. Moyer, Dallas, Texas, presented a paper, "Water Balance Problems from a Clinical Viewpoint."

* * *

A meeting of the Southeast Kansas Medical Society was held at Neodesha September 29. Two members of the faculty at the University of Kansas School of Medicine presented the scientific program. Dr. Paul W. Schafer discussed surgical problems and Dr. William L. Valk presented a urological discussion. A business session was held and Dr. Mirl C. Ruble, Parsons, was named president with Dr. J. D. Gough, Chanute, as secretary.

* * *

The Douglas County Society met at Baldwin October 11. Dr. Sloan J. Wilson, hematologist at the University of Kansas Medical Center, presented a scientific paper.

* * *

A meeting of the Northwest Kansas Medical Society was held at Norton October 17 with approximately 100 physicians from 10 counties in attendance. Dr. Franklin D. Murphy, dean of the University of Kansas School of Medicine, spoke on developments planned for the school. Dr. C. F. Taylor, superintendent of the state sanatorium, discussed "Surgery and Tuberculosis," and Dr. Newton G. Pritchett, also of the sanatorium staff, presented a paper on streptomycin.

* * *

The Golden Belt Medical Society met October 14 at Minneapolis with approximately 50 members in attendance. Speakers for the scientific program were Dr. R. H. Maxwell, Wichita; Dr. Philip W. Morgan, Emporia, and Dr. Thomas G. Orr of the University of Kansas Medical Center, Kansas City.

* * *

The Marion County Society met October 13 at Marion. At the business session the welfare medical contract for the county was discussed, and at the scientific session Dr. A. C. Eitzen, Hillsboro, and Dr. G. J. Goodsheller, Marion, showed Kodachromes.

Prevention and Treatment of Deafness in Children

(Continued from Page 463)

These then are the conditions which if unrecognized and untreated may lead to impaired hearing. The success which we enjoy in treating these conditions will depend upon our ability to recognize the early signs of impending ear trouble and institute corrective measures before it has become apparent to all concerned that the child is deaf.

REFERENCES

1. Crowe, S. J., and Lett, James E.: The Etiology, Treatment and Prevention of Chronic Sinus Infection. Annals of Otology, Rhinology and Laryngology 57: 364-370 (June) 1948.

2. Dochez, A. R., Mills, K. C., and Kneeland, Yale, Jr.: Filtrable Viruses in Infection of the Upper Respiratory Tract, J.A M.A. 110: 177 (Jan. 15) 1938.

3. Rivers, T. M.: Recent Advances in the Treatment of Viral and Rickettsial Diseases, J.A.M.A. 136: 291-292 (Jan. 31) 1948.

Postgraduate Course in OBSTETRICS AND GYNECOLOGY University of Kansas Medical Center December 6, 7 and 8, 1948

GUEST INSTRUCTORS

JOHN H. MOORE, M.D., Grand Forks, North Dakota.

LUCIEN R. PYLE, M.D., Topeka, Kansas.

LAWRENCE M. RANDALL, M.D., Associate Professor of Obstetrics and Gynecology, University of Minnesota School of Medicine; Chief, Section on Obstetrics and Gynecology, Mayo Clinic, Rochester, Minnesota.

RAY A. WEST, M.D., Wichita, Kansas.

This rather brief course is planned for those who are specializing in obstetrics and gynecology as well as those in general practice. It presents those subjects which are most frequently confronted in the day-by-day practice of the obstetrician, with emphasis on the more recent developments in both fields. The program of the first day is devoted entirely to gynecology; that of the last two days primarily to obstetrics.

Among the topics of special interest will be the improvement of the "cure rate" in the treatment of carcinoma of the cervix, the management of "suspicious" lesions of the cervix, the diagnosis and treatment of symptomatic retrodisplaced uterus, the prevention of premature labor, differential diagnosis and treatment of toxemias of pregnancy, dietary factors in the prevention and treatment of toxemias, postpartum care of the cervix and perineum, diagnosis and treatment of placenta previa, the elderly primipara, saddle block anesthesia in obstetrics, and the rational use of estrogens.

Schedule of Postgraduate Courses at the UNIVERSITY OF KANSAS SCHOOL OF MEDICINE 1948-49

November 1-3	Physical Medicine.
November 15-17	General Therapeutics, including Geriatrics.
December 6-8	Obstetrics and Gynecology.
January 10-12	Applied Basic Sciences.
(January 20-21	Reserved for Cancer Conference at Wichita.)
January 24-26	Public Health (for both doctors and nurses).
February 7-9	Radiology.
February 28-March 3	—Pediatrics.
March 28-31	Internal Medicine, Psychiatry and Dermatology.
April 4-6	Anesthesiology.
April 11-15	Ophthalmology and Otolaryngology.
April 25-27	Surgery, including Orthopedics and Urology.
May 10-12	Nursing.

NOTE: A course in Hospital Administration of three to five days duration will be arranged for late spring or early summer. Definite dates will be announced soon.

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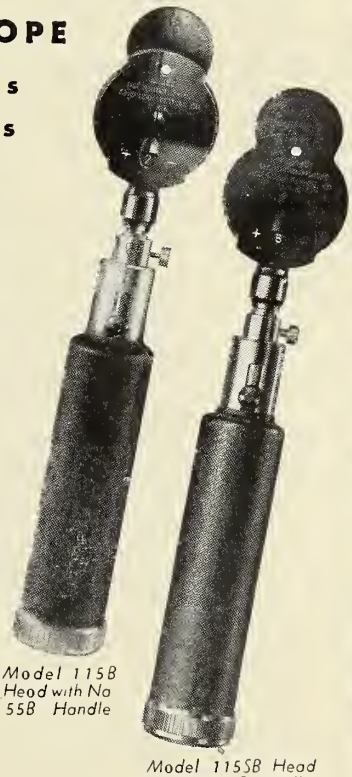
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To Advise Children's Bureau

Forty spokesmen representing both professional and non-professional groups met in Washington, D. C., in September to form an advisory committee to the U. S. Children's Bureau on federal-state programs for maternal and child health and crippled children's services. The committee will advise on matters of public policy affecting the promotion of better health for mothers and children.

While devoting much of its time at the organization meeting to becoming acquainted with the Children's Bureau work, the committee discussed several policy matters, ways of stimulating the training of more professional workers and auxiliary personnel and a review of the way state health agencies are now working with universities to this end.

An improved understanding between governmental and non-governmental agencies in the field was stressed, and the Children's Bureau was encouraged to set up an information exchange on programs and projects as the first step toward better over-all planning.

The Children's Bureau administers $18,500,000 which Congress makes available each year to the states to "extend and improve" maternal and child health services and services to crippled children. The fact that Social Security Act Title V puts a ceiling on the amounts of federal funds available for appropriation for state programs and that appropriations are now made up to this limit, was recognized as a deterrent to expansion of the programs.

Dr. Harry H. Gordon, professor of pediatrics at the University of Colorado Medical Center, will serve as chairman of the committee for three years. Among the physicians also serving on the committee are the following: Dr. Raymond B. Allen, president of the University of Washington; Dr. M. Edward Davis, professor of obstetrics and gynecology at the School of Medicine of the University of Chicago; Dr. Nicholson J. Eastman, professor of obstetrics, Johns Hopkins School of Medicine; Dr. William T. Green, representing the American Academy of Orthopedic Surgeons; Dr. William Mengert, representing the National Federation of Obstetric-Gynecologic Societies; Dr. James Raglan Miller, representing the American Medical Association, and Dr. James L. Wilson, professor of pediatrics, University of Michigan School of Medicine.

Also represented on the committee are the American Hospital Association, the American Dental Association, the National Farmers Union, the American Academy of Pediatrics, the National Society for Crippled Children and Adults, the American Association of Medical Social Workers, the National Urban League, the Congress of Industrial Organizations, Raymond Rich Associates, the American School Health Association, the American Legion, the American Nurses' Association, the American Association of University Women, the American Federation of Labor, the American Public Health Association, the American Physiotherapy Association, the American Dietetic Association, and the American Farm Bureau Federation.

Course in Clinical Endocrinology

A course of lectures and demonstrations in clinical endocrinology will be presented at the Skirvin Hotel, Oklahoma City, February 21 to 26, inclusive, under the sponsorship of the Association for the Study of Internal Secretions. A faculty of investigators and clinical endocrinologists in the various branches of the medical sciences in the United States and Canada will present a program of interest to both the general practitioner and the specialist.

Attendance will be limited to 100, and a fee of $100 will be charged for the course. Registrations and fees should be sent to the Association for the Study of Internal Secretions, c/o Dr. Henry H. Turner, 1200 North Walker Street, Oklahoma City 3, Oklahoma.

Hotel reservations may be made at the Biltmore, Black, Huckins, Skirvin, Skirvin Tower or Wells-Roberts Hotels.

Clinical Conference in Chicago

The fifth annual clinical conference of the Chicago Medical Society will be held at the Palmer House, Chicago, March 1-4, 1949. The scientific program will be presented by well-known speakers from all sections of the country, and many scientific and technical exhibits are being planned. One of the interesting features of the conference will be the luncheon round tables when questions will be answered by the speakers.

Physicians of other states and cities are invited to attend. Reservations should be made direct with the Palmer House.

Kansas Physicians in Korea

A recent letter from Dr. Roy K. Smith, an active member of the Northwest Kansas Medical Society who has been in public health work for the military government in Korea, told of his resignation from public health work. Both he and Dr. John D. Bigger, also a Kansan, have returned to their former status as medical missionaries.

During the past two years Dr. Smith, who was graduated from the University of Kansas School of Medicine in 1911, had been director for tuberculosis in Mesan, at the extreme southern coast. He is now located at Teagu.

In telling of his work in the National Sanatorium for Tuberculosis he reported that during the two-year period there were 314 admissions, 145 discharges and 17 deaths. The buildings were a former naval hospital enlarged by the addition of a surgical building. A small staff was being trained there and 180 patients could be cared for at one time.

"In addition," he continued, "classes of two doctors and two x-ray technicians were conducted from January to June for ten days each, so doctors from all the other hospitals could have special instruction. A plan for completing a 600-bed plant begun by the Japanese near Seonl did not materialize but various provincial hospitals and private hospitals are enlarging their wards for tuberculosis patients so in time there will be more hope for these patients."

Dr. Bigger plans to return late in the year to Andong to reopen a hospital built by Dr. Smith in 1914.

New Sulfa Drug for Colitis

A new sulfa drug, thalamyd (phthalyl sulfacetamide), is said to be an effective agent for the treatment of ulcerative colitis, according to a report printed in a recent issue of the Review of Gastroenterology. The compound was administered in 28 cases of ulcerative colitis that had been resistant to other therapy, with symptomatic and objective benefit in 18, the remainder being still under study. The dosage used was three grams three times daily in course of five days each with rest intervals of from five to seven days.

Thalamyd is absorbable into the intestinal wall although unabsorbable into the blood stream. It is produced by the Schering Corporation.

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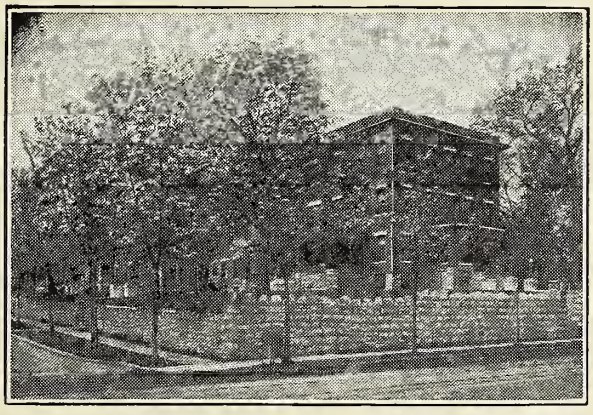
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ABSTRACTS

Cirrhosis of the Liver

The Effect of Choline, Methionine, and Low Fat Diet on the Life Expectancy of Patients with Cirrhosis of the Liver. By Leo Wade, Louis Neudorff, Herbert Fritz and Michael Karl. Jnl. Lab. and Clin. Med., 33:9, 1123-1132, Sept., 1948.

This clinical study of the effects of therapy in cirrhosis was based upon an experimental series of 224 patients treated after April 1942, and a control series of 311 patients treated between April 1935 and April 1942.

The earlier control group was not treated according to any particular therapeutic regime. The experimental group was put on a definite therapeutic regime consisting of: (1) diet of protein 90-100 grams, fat 50 grams, and carbohydrate 400-600 grams; (2) choline hydrochloride 1-8 grams daily and methionine 0.9 grams daily; (3) accessory vitamins A & D; (4) abstinence from alcohol.

The part which alcohol plays in production of cirrhosis is of interest and is a debatable point. It is of incidental interest that 68.9 per cent of the experimental series and 75.2 per cent of the control series were chronic alcoholics. A comparable percentage in each series gave a history of dietary inadequacy. More than 75 per cent of all patients had definitely palpable livers.

As of October 1, 1947, 75.5 per cent of the experimental group were known to be dead and 85.5 per cent of the control group were known to be dead. The duration of survival after the onset of initial symptoms varied from 21 to 73 months in the experimental group and from 78 to 176 months in the control group. Statistically there was no significant difference in survival time.

The duration of life in the two series was compared after the onset of certain definite symptoms, including ascites, jaundice, and hematemesis; again there was no significant difference.

In conclusion, it is evident that the therapeutic regime outlined plus careful supervision had no appreciable effect on the course of the cirrhosis. It is pointed out that no accessory B. Complex was administered to this series.—*E.J.R.*

* * *

Tonsillectomy

Tonsillectomy in the United States. By Lawrence R. Boies. Ann. Oto. Rhino. Laryng., 52:2, June, 1948.

This should be a worn-out subject. It is the 83rd paper on some aspect of the tonsil subject to be presented before the American Laryngological Association in its 69 meetings. From 1942-1946, inclusive, there has been an average of 100 papers a year concerning tonsils listed in the Quarterly Cumulative Index. In 1947 the tonsil business was publicized in the Woman's Home Companion under the title "Unnecessary Operations" and a few months later the Reader's Digest summarized the article for wider lay consumption.

The purpose of this presentation is to raise a dissenting voice to the contention that the tonsil and its surgical treatment need be a problem. A properly performed tonsil operation is a highly satisfactory procedure in terms of the end results. In many instances, however, it proves to be not the simple minor surgical procedure that it is at times considered.

In all the writings the three aspects of tonsillectomy that tend to make it a problem are: (1) indications for tonsillectomy, (2) adequacy of the operation, and (3) morbidity or even mortality connected with the operation. The author has performed slightly more than 3,000 tonsil operations. Practically all of the children operated have been referred by pediatricians who were acquainted with the whole picture of the child's health. Out of this experience he draws certain conclusions. His indications for tonsillectomy fall into three categories:

1. Repeated attacks of tonsillitis;
2. Hypertrophy to the extent of obstruction;
3. Evidence of persistent chronic infection.

Concerning the adequacy of the operation he makes an important distinction between tonsil remnants which may show some growth and lymphoid nodules growing in the fossa from the membrane just like the nodules on the posterior pharyngeal wall. The former is rather frequently a source of trouble, the latter almost never.

In discussing morbidity and mortality he says the bugbear of tonsillectomy is postoperative bleeding. He further observes that it is practically needless if an extra few minutes are given to careful hemostasis at the time of operation. Bleeding several days postoperatively is unusual and rarely serious. He lays considerable stress on direct laryngoscopy with aspiration of blood from the trachea immediately following the tonsil procedure. He recommends anesthesia with an intratracheal tube for adults if a general anesthesia is used. He insists upon skilled anesthetists for the tonsil operation but he does not mention preanesthetic medication probably leaving this to the anesthetist. In his own practice and in the hospital discussions in his city he finds no relationship between any type of poliomyelitis and tonsillectomy. In the entire article his observations and conclusions seem to be carefully considered.—*W.B.G.*

* * *

Infectious Croup

Infectious Croup: Etiology. By Edward F. Rabe. Pediatrics, 2:3, 255-265, Sept. 1948.

A report is based on the study of 347 cases of infectious croup admitted to the pediatric service of the New Haven Hospital during the years 1937 to 1948 inclusive.

Infectious croup is defined as a disease of the upper respiratory tract characterized by inflammation of the rhinopharynx and downward spread of the infection leading to the variable degrees of stenosis of the laryngeal, laryngotracheal, or laryngotracheobronchial air passages. This stenosis is due to edema and is aggravated by membrane formation.

At the time of admission to the hospital all patients had cultures taken of material from the nose and throat, blood and any purulent lesion. Repeated cultures were made during the course of the illness, as seemed indicated. If a patient died, immediate postmortem heart's blood and spinal fluid cultures were made.

Twenty-eight cases were H. influenza Type B croup, also with positive diphtheria cultures, also nine per cent were positive for H. influenza, 23 per cent H. streptococcus, 45 per cent pneumococci.

Twenty-eight cases were H. influenza Type B Croup, four per cent of these showed H. streptococcus and 39 per cent pneumococci.

Two hundred and ninety-seven cases were classified as "virus" croup since no organism identified seemed clinically to be responsible for the disease.

Acute infectious croup can be divided into three etiolog-



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ical categories, namely, diphtheritic croup, H. Influenza type B croup, and so-called "virus" croup. The clinical divisions of this disease, i.e., laryngitis, laryngotracheitis, and laryngotracheopneumonitis, are of prognostic value, but no etiological significance.—*D.R.D.*

* * *

Mental Testing in Children

Mental Testing in Children. By Ruth Bakwin, Arthur Weider and Harry Bakwin. Jnl. Ped., 33:3, 384-394, Sept. 1948.

Psychological testing was originally developed by Binet in 1905.

Indications for mental testing: 1. doubtful intelligence; 2. behavior problems; 3. educational retardation; 4. diagnostic problems, i.e., differentiating from mental deficiency per se from that associated with organic defect, a psychosis, or a combination of these; 5. to check the effect of treatment; 6. miscellaneous uses, e.g. child adoption, vocational guidance, appraisal of aptitudes, checking juvenile delinquents, mental growth.

Like other laboratory procedures, psychologic tests depend for their reliability not only on the accuracy with which they are standardized but also on their proper administration, scoring and interpretation. We must have wholehearted cooperation of the child and a consideration of educational and cultural background.

Tests being used: Terman and Merrill Revision of the Stanford-Binet Scale and Wechsler-Bellevue Adult and Adolescent Scales.

Testing during the first two years: Developmental diagnosis by Gesell and Amatruda covers complete testing from four weeks through five years. These tests reveal not only retardation but emotional instability, defects in vision, in hearing, and in motor ability. The effects of cerebral injury can be distinguished from signs of amentia within the first year.

The Gesell tests are designed to disclose the four basic fields of behavior: motor, adaptive, language, and personal-social behavior. The results are expressed as D.Q. or Development Quotient, rather than as I.Q. The D.Q. is the ratio between the maturity age and the chronologic age. Gesell considers the D.Q. more discriminating than the I.Q. since the D.Q. can be specifically ascertained for each field of behavior and for individual behavior traits.

The Goodenough Draw a Man Test is simple to administer. The examiner asks the child to draw a man as carefully and as well as he can. The test is highly reliable, correlating well with the Binet tests. The test is most suitable for children between three and 10 years of age. The child receives one point for each of the items which is present in his drawing. For each four points one year is added to the basal age which is three years. Thus if the child's drawing shows that the first nine items are present in his drawing he scores nine points and his mental age score is 3 plus $\frac{9}{4}$ or 5¼ years.

At best, intelligence tests merely sample a few aspects of the complex, multidetermined human factor which we call intelligence. The objective character of the results enables comparisons to be made with norms that have been standardized. While this procedure is far better than a subjective, biased, unstandardized appraisal, caution must be exercised not to overemphasize the quantitative features of the I.Q.—*D.R.D.*

Medical Writers' Association Formed

The American Medical Writers' Association came into being on September 29 when changes were made in the constitution of the Mississippi Valley Medical Editors' Association to more clearly express the scope and purpose of the organization.

The purpose of the association is defined as follows: "(a) to bring into one organization all physicians interested in medical journalism or medical writing, and all laymen who are connected with the editorial or business staff of medical periodicals, libraries, foundations, or publishing companies; (b) to help improve medical literature; (c) to secure interchange of views of the members so that they may attain such intelligent unity and harmony in every phase of their labor as will elevate and make effective the opinions of the medical profession in their respective communities."

The removal of the word "Editors" broadens the association's scope since there are thousands of medical men interested in writing but only a few hundred who are medical editors. Elimination of the words "Mississippi Valley" removes any geographic implication. Meetings, at least for the next few years, will be held in the middle west to make attendance more convenient for the largest number of people.

Officers for 1949 are: president, Dr. E. F. Parker, Moline, Illinois; president-elect, Dr. K. H. Schnepp, Springfield, Illinois; vice-president, Dr. Julius Jensen, St. Louis, Missouri; secretary-treasurer, Dr. Harold Swanberg, Quincy, Illinois.

Drugs Recalled

Certain codes of procaine hydrochloride solution manufactured by C. B. Kendall Company, Indianapolis, Indiana, have caused severe necrotic damage upon injection, according to a recent release from the Food and Drug Administration. Attempts to recall the lot have not been completely effective, so physicians are warned that the solutions coded 24830 and 64712 are dangerous and should not be used.

The Kendall Company has also distributed several other lots of injection drugs which possess a pH of 3.0 or less and has voluntarily recalled the following products: Vitamin B Complex Stronger, Lot 54843; Vitamin B Complex, Lot 44832; Pentabexin, Lots 44823 and 54837; Thiadoxin, Lots 34808, 44817 and 64842.

Also listed by the Food and Drug Administration as injection products that have shown low pH values are: Vitamin B Complex Stronger, Lot 64844; Vitamin B Complex, 54811; Thiamine Hydrochloride, Lot 34817; Thiamine Hydrochloride, Lot 74806; Pyridoxine Hydrochloride, Lot 74725; Pentabexin, Lot 64812, and Procaine Hydrochloride, Lot 74871.

Axtell Christian Hospital Anniversary

The Axtell Christian Hospital at Newton observed the 60th anniversary of its founding with a program and banquet on October 28, with participation in the celebration open to all in the community. The hospital was founded by the late Dr. John Thomas Axtell, a prominent physician in Kansas who served as president of the Kansas Medical Society in 1911-1912, and during the past 25 years it has been operating under the sponsorship of the Kansas Christian Missionary Society.

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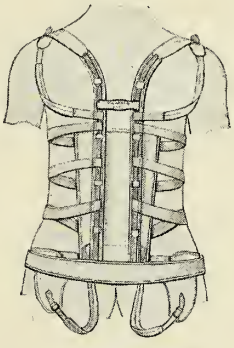
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BOOK REVIEWS

Congenital Malformations of the Heart. By Helen B. Taussig, M.D. Published by the Commonwealth Fund, New York, 618 pages. Price $10. Book available on loan from Stormont Medical Library.

As recently as ten years ago the complete diagnosis of congenital heart disease could only be made at autopsy. That such is no longer the case is due largely to the work of Dr. Taussig, carried out over a period of years at the Cardiac Clinic of the Harriet Lane Home in Baltimore. This excellent volume is a distillation of her experience; in the words of Dr. Edwards Park, who wrote the preface, "by means of this book the diagnosis of malformations of the heart is brought within the power of all physicians who are willing to devote time to its study and to practice its teaching."

The writing plan divides the whole into four parts. First, the physiologic and diagnostic principles common to all malformations, including a satisfying outline of fluoroscopic examination and a lengthy discussion of the mechanism and implications of cyanosis. Second, "the malformations which deprive the body of an adequate supply of oxygenated blood," the majority of which cause death in infancy, with separate chapters for each defect. Third, malformations more often encountered, in which blood oxygenation is sufficiently good to permit growth and a more or less extended span of life. The chapter headings include patent ductus arteriosus, auricular and ventricular septal defects, the maladie de Roger, Eisenmenger complex, coarctation of the aorta, anomalies of the aortic arch, and several other rarer syndromes. In the fourth part there are two chapters only, titled "General Medical Care" and "Medical Aspects of the Surgical Correction of Congenital Pulmonary Stenosis or Stresia," of which the latter is an adequate discussion of the application of the Blalock-Taussig operation.

Each chapter on an individual anomaly is complete in itself, with subdivisions on anatomy, physiology, clinical findings, diagnosis, differential diagnosis, prognosis, and illustrative cases. All are profusely illustrated; there are 46 full page circulation diagrams in color, and 177 line drawings, photographs, and x-rays. Format, paper, and printing are well up to the high standards of all Commonwealth Fund publications.

In her own preface, Dr. Taussig has called attention to the major deficiencies of this book. It is primarily an organization of her personal experience. Angiocardiography is barely mentioned. The bibliography is sketchy. Blood gas analyses are given little attention. Because her interests are almost entirely medical, the surgical aspects of congenital heart disease are covered with disproportionate brevity; this is in no sense a handbook of surgical technique.

The average physician, who is likely to have available no more than Dr. Taussig's own preferred tools: a stethoscope, a fluoroscope, an electrocardiograph, and good judgment, should find this book useful for reference, a means of making sense out of the occasional cardiac anomalies which may come his way. For pediatricians and for cardiologists, it is required reading.—*G.M.M.*

* * *

Essentials of Pathology. By Lawrence W. Smith, M.D., and Edwin S. Gault, M.D. Published by the Blakiston Company, Philadelphia. 764 pages, 740 illustrations, 261 case histories. Price $12.

This book varies from the standard form in that the authors first discuss the subject, then show cuts of the findings, and then present case histories to illustrate the condition. The chapter on hematology is new in this edition, and an unusual amount of space is devoted to the parasitic diseases. A new chapter has also been added on the Avitaminoses. The material on various tumors is adequate and well written. The illustrations are unusually well prepared. This pathology is deserving of a place in the practicing physician's library as well as the pathologist's. —J.L.L.

Protenum for Sick Children

Protenum, a high protein food that is low in fat, is manufactured by the Mead Johnson Company, for sick children who present a two-fold problem in respect to growth and maintenance of body tissue: (1) repair of damage wrought by disease, and (2) provision of the nitrogen needed for the growth process. Protenum will increase protein intake without adding appreciable bulk to the diet. Literature and professional samples may be obtained from Mead Johnson and Company, Evansville 21, Indiana.

Tour to June A.M.A. Meeting

Two tours designed for those attending the June 1949 meeting of the American Medical Association in Atlantic City have been announced by International Travel Service, Inc., Chicago.

A rail tour, leaving Chicago on June 4 and arriving in Atlantic City the following day, includes no plans for the time of the meeting, June 6-10. After the A.M.A. session, the tour will proceed to New York City, Montreal, Quebec, various Canadian shrines and other points of interest, and will end in Chicago June 18. Part of the Canadian trip will be by steamer.

An all-expense airplane cruise to Bermuda is also offered at the conclusion of the A.M.A. meeting.

Complete information may be secured from International Travel Service, Inc., Palmer House, 119 South State Street, Chicago 3, Illinois.

ANNOUNCEMENTS

November 27—First National Medical Public Relations Conference, Statler Hotel, St. Louis, Missouri.

November 30-December 3—Second Annual Interim Session, American Medical Association, St. Louis, Missouri.

December 4-9—Annual Meeting, American Academy of Dermatology and Syphilology, Chicago, Illinois.

January 20-21—First Annual Mid-West Cancer Conference, Broadview Hotel, Wichita, Kansas. Joint sponsorship of Kansas Medical Society and Kansas Division of American Cancer Society.

February 21-26—Course in Clinical Endocrinology, Association for Study of Internal Secretions, Skirvin Hotel, Oklahoma City, Oklahoma.

March 1-4—Fifth Annual Clinical Conference, Chicago Medical Society, Palmer House, Chicago, Illinois.

March 28-April 1—30th Annual Session, American College of Physicians, New York, New York.

MAY 9-12—90th ANNUAL SESSION, KANSAS MEDICAL SOCIETY, TOPEKA, KANSAS.

June 6-10—Annual Meeting American Medical Association, Atlantic City, New Jersey.

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Census of Physicians

A tabulation of punch cards in the office of the Bureau of Medical Economic Research, Chicago, shows that there were 199,755 living physicians in the United States as of June 1, 1948. That number includes those who have retired and those who are employed by federal, state and local health agencies. Further tabulations to be released later will present breakdowns showing the number in each group.

Work on compilation of this data started more than a year ago and will be completed early in 1949. Information has been taken from the records of the Directory Department of the American Medical Association.

The approximate number of living physicians in the United States is now 17 per cent greater than the 170,163 shown in the A.M.A. directory published in 1940. During the same interval the population of the United States increased only 12 per cent.

The Bureau reports that figures for any one state cannot be given accurately at this time since unrecorded deaths and interstate migrations, for which compensation will be made when a final check is undertaken, are not now taken into account. The approximate number shown for Kansas in the report is 2,223. This figure is larger than the total shown on records in the office of the Kansas Medical Society, and it no doubt includes a large number of physicians who are not in practice here but list this state as their home while receiving graduate education such as that offered in Veterans Administration hospitals.

Surgical Education Costly

Preparing for a career as a surgeon is high on the list of the most costly professional undertakings in the United States today, according to a recent report made by Medical Economics, business magazine for physicians. An estimated $30,000 is spent on the education of a surgeon, including four years of college, four years of medical school, one year as an interne, and four years of graduate surgical training. In addition, the average surgeon's total investment in equipment is $4,975.

According to the Medical Economics survey, the average surgeon in 1947 saw 21 patients a day and worked an average of more than nine hours a day, devoting about eight hours a week to charity cases.

Two-Minute Scrub Possible for Surgeons

Two-minute preoperative scrub time in operating rooms is today "bacteriologically feasible," utilizing the disinfecting action of pHisoderm fortified with three per cent chlophane, according to Dr. Carl W. Walter, assistant professor of surgery, Harvard University, in his recently published book, "Aseptic Treatment of Wounds."

The product pHisoderm, a free-flowing emulsion, contains sodium octylphenoxyethoxyethyl ether sulfonate, lanolin chloesterols and petrolatum. It was developed by Winthrop-Stearns, Inc., pharmaceutical manufacturer, under the direction of Dr. B. Thurber Guild, associate medical director. It is currently being subjected to comprehensive bacteriological and clinical research in a large group of hospitals and is being increasingly used as a cleansing agent for those suffering from contact dermatitis or other skin irritations due to soap.

Impressionistic Medical Art

A new type of impressionistic medical art, created for Winthrop-Stearns, Inc., pharmaceutical manufacturer, by John Arnold, Viennese artist now in New York, is now being distributed on request. Copies of his oil paintings are reproduced in full color.

The idea is to form the profile of a human head using a variety of objects either symbolic of the condition to be treated, or of the plants, animal tissues, or human organisms involved in the medication.

In one painting, entitled "Fruits, Vegetables and Vitamins," Arnold has assembled oranges, grapes, onions, garlic, tomatoes, beets, peas and other vitamin-rich fresh fruits and green vegetables to form a feminine face. To portray the protein values in fish and meats as obtained in amino acid preparations, a man's head emerges from an array of raw steak, chops, frankfurters, lobsters and several different kinds of fish.

Described as "gruesome, but humorous," another Arnold oil painting depicts a head composed entirely of detailed colored drawings of human internal organs: intestines, lungs, brain, heart, kidney and gallbladder among others. It is entitled "Vitamins and Viscera."

Meeting on Dermatology and Syphilology

The seventh annual meeting of the American Academy of Dermatology and Syphilology will be held in Chicago December 4-9, with principal sessions at the Palmer House and special courses in histopathology and mycology at the University of Illinois and Northwestern University.

Deaths in 1947

The number of deaths registered in the United States during 1947 was 1,445,370, according to figures released recently by the National Office of Vital Statistics, with a crude death rate of 10.1 deaths per 1,000 estimated population. This is the second lowest rate ever recorded for this country, the lowest being 10.0 in 1946. A total of 18,784 deaths was reported for Kansas.

New Advertising Theme

A new copy theme in American Optical Company's campaign of national educational messages has been inaugurated in a number of popular magazines. During the past seven years the company's advertisements have stressed the fact that the true value of eye comfort lies in professional and technical services, and the present series, "Whose Eyes Are Better?" points out that Americans see better than most persons of other countries because modern eye care is widely available, within reach of all. The advertisements continue to emphasize professional and technical services for visual comfort and efficiency.

Grants-in-Aid for Cancer Research

The largest number of grants-in-aid to non-federal institutions for cancer research ever given out of Public Health Service funds was announced recently by Oscar R. Ewing, Federal Security Administrator. Fifty-one grants were made, 20 for research projects already in progress. Twenty-eight applications were rejected. The University of Kansas received a grant of $11,000 for photometric histochemical and cytochemical study of tumors.

Board Examination in February

The next scheduled written examination and review of case histories by the American Board of Obstetrics and Gynecology has been set for February 4, 1949, and applications may be made until November 1, 1948. Bulletins outlining recent changes in requirements and regulations and application forms may be secured from the Board offices, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

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THE DIAGNOSIS AND TREATMENT OF HYPERTENSION*

A. Carlton Ernstene, M.D.**
Cleveland, Ohio

Although essential hypertension is the most common cause of a persistent elevation in blood pressure, there are a number of other pathological states which are regularly attended by increased arterial tension. Prognosis and treatment vary according to the underlying condition, and it is important, therefore, that the various types of hypertension be differentiated from each other. In most instances, diagnosis is not difficult. At times, however, it is impossible to classify a case with certainty after even the most detailed clinical and laboratory studies.

ESSENTIAL HYPERTENSION

Essential hypertension is characterized by a continuous, though often variable, elevation in blood pressure in the absence of glomerulonephritis and other conditions known to cause increased arterial tension. Both the systolic and the diastolic pressure are increased. In the early stages, tests of renal function give normal results, but as time passes, a progressive diminution in function frequently develops. A certain number of patients, probably not more than 10 per cent of the entire group, ultimately die of uremia. Cardiac complications, such as congestive heart failure and coronary artery disease, are of much greater importance and are the cause of death in approximately 60 per cent of all cases. Cerebral vascular accidents constitute the terminal event in 15 or 20 per cent of the patients.

Although the cause of essential hypertension remains unknown, there is general agreement that the elevation in pressure is due to increased resistance in the peripheral circulation and that the increased resistance is the result of heightened arteriolar tone.[1] The abnormal tonus of the arterioles is not due to organic changes in the vessels but probably represents the summated effect of three factors which are present in different proportions in different cases. The first of these is a neurogenic factor, the second is a humoral element, and the third is an intrinsic disturbance in the arterioles themselves. There is as yet no way in which the effect of the second and third factors can be separated from each other, and, as a matter of fact, the existence of the two as independent elements has not been established beyond doubt. The relative importance of the neurogenic factor can be demonstrated in a given case of hypertension by the administration of tetraethylammonium chloride. This drug temporarily blocks the autonomic ganglia and thus abolishes the neurogenic component of the hypertension. Whatever abnormal elevation in pressure then remains is considered to be the combined result of the humoral element and the intrinsic vascular disturbance.

Even though protracted essential hypertension may not be attended by detectable changes in renal function, it has been suspected for many years that the kidneys are fundamentally concerned in the pathogenesis of the condition. When Goldblatt and his associates[2] demonstrated that hypertension can be produced regularly in the dog by partial constriction of the renal artery, the weight of these suspicions was greatly increased, and there resulted extensive investigations of the mechanisms by which the kidney might elevate the blood pressure. Considerable evidence has been brought forward to indicate the existence of a renal humoral mechanism capable of causing a rise in arterial pressure, but it has not been established that this is the primary cause of essential hypertension. According to this mechanism, renin, a globulin produced by the kidney, acts upon hypertensinogen (renin substrate), which is normally present in the blood serum, to form hypertensin (angiotonin). Hypertensin is an active vasoconstrictor substance and is destroyed by hypertensinase (angiotonase), an enzyme in the blood. Dexter[3] recently reviewed the status of the renin system and pointed out that although increased amounts of renin are present in the blood in acute hypertension, no consistent abnormality of the sys-

*Presented at the 89th annual session, Kansas Medical Society, Wichita, Kansas, May 10-13, 1948.

**From the Cleveland Clinic and the Frank E. Bunts Educational Institute.

tem has been demonstrated in chronic hypertension in man.

After hypertension has been present for some time, renal arteriolosclerosis almost always develops, and similar lesions occur less commonly in the arterioles of the liver, spleen, pancreas, and brain. Whether these changes are the result of the elevated pressure or represent a later manifestation of a primary vascular disorder has not been determined.

Essential hypertension may be divided into three types according to the findings on ophthalmoscopic examination. These are the benign, intermediate and malignant forms. In the benign type, the eye grounds show constriction and sclerosis of the retinal arteries without other changes. The malignant form is characterized by the additional presence of neuroretinitis with edema of the optic disks and surrounding retina. Differentiation of typical cases of benign and malignant hypertension is comparatively simple, but there is a group of cases which cannot be placed in either of these classes. Ophthalmoscopic examination reveals more extensive changes in the form of exudates and hemorrhagic areas than are present in benign hypertension, and yet because of the absence of papilledema the condition cannot be classified as malignant. These cases are therefore placed in an intermediate group. Even in the malignant form, renal function frequently is normal or only slightly reduced at the time the condition is first recognized.

Malignant hypertension usually develops upon earlier hypertension of the benign type. The majority of patients with benign hypertension, however, have their disease for many years and die of its results without ever developing the ophthalmoscopic signs of the malignant stage. The benign type of hypertension may be present for several years without causing serious complications, but malignant hypertension usually results fatally within two years after the diagnosis is made.

The treatment of essential hypertension probably will remain unsatisfactory until the problem of pathogenesis has been solved. There is no measure in use today that will reduce the blood pressure in all patients, and none of the procedures employed has been proved capable of permanently altering the natural course of the disease. Excessive pessimism is not justified, however, because in many cases much can be done to alleviate symptoms and help the patient understand his problem. When the elevation in pressure is of mild degree it frequently is best to minimize the importance of the condition and emphasize the fact that hypertension ofen exists for many years without producing symptoms or detectable effects on general health. Reassurance is an important part of the management of every case of hypertension and should be given to the fullest extent permitted by the actual situation. Steps should be taken to insure adequate rest and recreation, and strenuous exertion and emotional tension should be avoided. A program of weight reduction should be outlined for obese individuals. Mild sedatives such as small amounts of phenobarbital are helpful for the control of nervousness, apprehension, insomnia, heart consciousness, and the precordial discomfort of which many patients complain.

The administration of potassium thiocyanate will result in an appreciable reduction of blood pressure in approximately one-third of all patients with essential hypertension. There is no evidence, however, that this lowering of pressure retards the progress of the accompanying vascular disease. Because of this and because of the need for carefully controlling the thiocyanate concentration in the blood, the drug is of limited usefulness. Nevertheless, it often is of value in relieving such symptoms as headache and vertigo. The presence of renal insufficiency, blood dyscrasias, and drug sensitivity contraindicates its use.

Kempner[4] has made an extensive study of the therapeutic effect of a rice, fruit, and sugar diet in patients with essential hypertension and recently reported improvement in 322 of 500 patients. The beneficial effects often included correction of previously inverted T waves in the electrocardiogram, diminution in the size of the heart, and improvement in the ophthalmoscopic findings. In 125 of the 500 patients the blood pressure returned to normal or almost normal values. Encouraging results from the use of this type of treatment also have been reported by others.[5] Schroeder,[6] however, could demonstrate no special advantage of the diet over a normal diet containing a similar amount of salt. He observed improvement in an occasional individual on a low salt diet. Patients frequently object to the monotony of the rice, fruit, and sugar regimen, and many refuse to cooperate to the degree necessary for an adequate trial. Further investigation is certainly indicated.

In the surgical treatment of essential hypertension, thoracolumbar sympathectomy has become the procedure most commonly employed. The operation is followed by a significant reduction in systolic and diastolic pressure in approximately 50 per cent of all patients under 50 years of age. In another 25 per cent, symptoms such as headache and dizziness are strikingly improved even though the pressure is not appreciably affected. In favorable cases, diminution in the blood pressure may be attended by improvement in the electrocardiogram, a decrease in the size of the heart and regression of the retinopathy. Unfortunately, no tests have been de-

vised to date that will differentiate between cases which will be benefited by the operation and those which will not. There is one group of patients, however, in which we believe surgical treatment should always be given serious consideration. This group is comprised of persons below the age of 50 in whom hypertension has progressed to the malignant phase but has not yet caused more than slight enlargement of the heart or more than moderate diminution in renal function.

HYPERTENSION DUE TO CHRONIC GLOMERULONEPHRITIS

Chronic glomerulonephritis usually is accompanied by hypertension. In the nephrotic type of the condition, however, in which edema dominates the clinical picture, the blood pressure may remain normal for a considerable time. Differentiation between chronic glomerulonephritis and essential hypertension often is difficult and at times impossible. A history of former acute glomerulonephritis is of importance but may not be obtainable because the patient has forgotten the episode or because the attack was so mild that it passed unnoticed.

Chronic glomerulonephritis occurs in individuals of all ages but, in contrast to essential hypertension, is relatively uncommon after the age of 45. Helpful diagnostic signs include the presence of impaired renal function, albuminuria with urinary casts and microscopic hematuria, edema of renal origin, and anemia. These findings serve to distinguish chronic glomerulonephritis from those cases of essential hypertension in which renal function is normal. When the same features are encountered in a patient between 30 and 45 it may be impossible to determine whether the condition is chronic glomerulonephritis or essential hypertension which has progressed to the stage of producing impairment of renal function. A similar picture in individuals less than 30 years of age will usually be the result of glomerulonephritis, and in patients past the age of 45, essential hypertension generally will prove to be the cause.

No striking advances have been made in the treatment of chronic glomerulonephritis. Kempner,[7] however, observed improvement in 65 of 100 patients treated with the rice and fruit diet.

HYPERTENSION WITH UNILATERAL RENAL DISEASE

The production of experimental renal hypertension by Goldblatt[1] immediately stimulated search for instances of hypertension in man due to unilateral kidney disease. It soon became apparent that such conditions as hydronephrosis, chronic pyelonephritis, calculus pyonephrosis and renal tuberculosis with autonephrectomy are found in only a small percentage of patients who have an elevated blood pressure. Nephrectomy results in improvement or cure of the hypertension in not more than one-half of these cases. Unilateral renal disease should be searched for by means of urograms or pyelograms in every hypertensive individual less than 50 years of age, but nephrectomy should be performed only when indicated from the urologic point of view and not merely because of the presence of hypertension.

THE CUSHING SYNDROME

Cushing[8], in 1932, described a syndrome which he attributed to basophilic adenoma of the pituitary gland and in which hypertension is a constant finding. The condition usually occurs in young adults and is further characterized by the rapid development of obesity confined to the face, neck, and trunk, purplish abdominal striae, and softening of the spine which often leads to kyphosis. In females, amenorrhea and hypertrichosis of the face and trunk develop early. Hyperglycemia and glycosuria are common. The erythrocyte count is often increased, and the skin has a dusky or plethoric appearance. The patients are very susceptible to infections, particularly of the respiratory tract.

Since Cushing's original report it has been established that the majority of cases of the syndrome are due not to pituitary basophilism but to a malignant tumor of the adrenal cortex. Instances also have been reported in which hyperplasia of the cortex rather than a tumor has been the cause. The presence of increased estrogenic substance in the urine may aid in the recognition of cases due to adrenal tumors or cortical hyperplasia.

In Cushing's syndrome due to pituitary basophilism, roentgen ray radiation is at times of therapeutic value. In cases due to adrenal tumor, surgical removal of the tumor results in rapid disappearance of all manifestations of the disease. There seems to be little improvement in resistance to infection, however, and many patients die of this cause within a few years of the operation.

PHEOCHROMOCYTOMA

Pheochromocytomas or paragangliomas of the adrenal medulla or neighboring chromaffin tissue characteristically cause paroxysmal hypertension but may also be responsible for a sustained elevation in blood pressure. In the paroxysmal form the rise in pressure develops suddenly and may last a few minutes to several hours. The attacks usually are accompanied by symptoms similar to those which follow the injection of a moderate or large amount of epinephrine. Tremor, forceful tachycardia, pallor, sweating, dilatation of the pupils, nausea, vomiting, and apprehension are common, and the blood sugar concentration may rise to levels considerably above

normal. When the condition causes persistent hypertension, the tremor, elevated heart rate, and warm, moist skin may suggest hyperthyroidism, and the basal metabolic rate may be elevated. Thyroidectomy, however, is without effect. Surgical removal of the tumor, on the other hand, results in complete and permanent relief from the symptoms.

The diagnosis of pheochromocytoma is usually difficult. The tumor rarely is of sufficient size to be palpated through the abdominal wall, but its presence may be demonstrated occasionally by urograms or pyelograms or by the perirenal injection of air. The latter procedure is dangerous and should be used with caution. As an aid in diagnosis, Roth and Kvale[9] recommended observing the response of the blood pressure to the intravenous injection of a small amount of histamine base, and Goldenberg and his associates[10] recently reported on a test using benzodioxanes. Both of these procedures deserve further evaluation.

COARCTATION OF THE AORTA

In coarctation of the aorta a short segment of the aorta in the region of the ligamentum arteriosum is constricted, and the lumen of the vessel is usually reduced to a diameter of 6 mm. or less. The circulation to the portion of the body below the level of stenosis is maintained by anastomoses between branches of the subclavian and axillary arteries and the intercostal arteries which arise from the aorta below the site of constriction. These collateral pathways make themselves apparent clinically by roentgenologic evidence of erosion of the subcostal grooves of the ribs and frequently also by the presence of pulsating vessels over the back. Because of the resistance offered to the flow of blood by the narrowed aorta and the anastomotic pathways, the arterial pressure is elevated in the arms and reduced in the lower extremities, and the pulsations in the abdominal aorta and femoral arteries are greatly diminished or absent. The presence of coarctation of the aorta is often overlooked, but this error can be avoided if one makes it a practice to palpate the abdominal aorta and femoral arteries in every patient in whom the brachial blood pressure is elevated.

In the past, the recognition of coarctation of the aorta was a matter of academic interest only, but because the condition can now be corrected by surgical treatment its detection has become of practical importance. Successful operations have been performed by a number of surgeons. The usual procedure has consisted of resection of the constricted segment of the aorta and re-establishment of the continuity of the vessel by end-to-end anastomosis. Occasionally, however, because of the anatomic conditions present, it has been necessary to follow the resection of the narrowed portion of the aorta by section of the left subclavian artery. An anastomosis has then been performed between the proximal end of this vessel and the distal end of the aorta. In children and adolescents, a successful operation results in correction of the hypertension in the upper part of the body and the appearance of normal pressure and pulsations in the arteries of the legs. In older patients, on the other hand, some residual elevation of the brachial blood pressure may remain.

SUMMARY

This discussion has been limited to a consideration of those forms of hypertension which are encountered most frequently in clinical practice or are of special interest because they are amenable to surgical treatment. Ths existence of several types of hypertension which can be corrected by operation makes it important that these conditions be kept in mind and that suitable studies for their detection be carried out in every patient in whom the blood pressure is elevated.

REFERENCES

1. Prinzmetal, M., and Wilson, C.: The Nature of the Peripheral Resistance in Arterial Hypertension with Special Reference to the Vasomotor System. J. Clin. Investigation 15:63 (Jan.) 1936.

2. Goldblatt, H., Lynch, J., Hanzal, R. F., and Summerville, W. W.: Studies on Experimental Hypertension: I. Production of Persistent Elevation of Systolic Blood Pressure by Means of Renal Ischemia. J. Exper. Med. 59:347 (March) 1934.

3. Dexter, L.: Mechanisms of Human Hypertension. Am. J. Med. 4:279 (Feb.) 1948.

4. Kempner, W.: Treatment of Hypertensive Vascular Disease with Rice Diet. Am. J. Med. 4:545 (April) 1948.

5. Flipse, M. E., and Flipse, M. J.: Observations in Treatment of Hypertension with Rice-Fruit Diet. Southern M. J. 40:721 (Sept.) 1947.

6. Schroeder, H. A.: Low Salt Diets and Arterial Hypertension. Am. J. Med. 4:578 (April) 1948.

7. Kempner, W.: Some Effects of the Rice Diet Treatment of Kidney Disease and Hypertension. Bull. New York Acad. Med. 22:358 (July) 1946.

8. Cushing, H.: The Basophil Adenomas of the Pituitary Body and Their Clinical Manifestations (Pituitary Basophilism). Bull. Johns Hopkins Hosp. 50:137 (March) 1932.

9. Roth, G. M., and Kvale, W. F.: A Tentative Test for Pheochromocytoma. Am. J. M. Sc. 210:653 (Nov.) 1945.

10. Goldenberg, M., Snyder, C. H., and Aranow, H., Jr.: New Test for Hypertension Due to Circulating Epinephrine. J.A.M.A. 135:971 (Dec. 13) 1947.

BRONCHOSCOPY IN DISEASES OF THE CHEST

William Barry, M.D.*
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Bronchoscopy is a diagnostic procedure of great value in all types of thoracic pathology. In many thoracic diseases bronchoscopy is also of palliative value, and in certain selected cases it can and does cure the disease.

The bronchoscope is a bronchial speculum, and broadly stated, it bears the same relation to intrathoracic disease that the vaginal speculum does to pelvic disease. Speculum examination may reveal several things: (1) a normal state; (2) a condition that may be treated through the speculum; (3) a condition amenable to treatment by irradiation or physical therapy; (4) a condition that requires external surgery.

Speculum examination is an essential part of a complete examination of any part of the body for which a speculum is available. In dealing with intra-thoracic disease, the internist can tap, look, and listen on the outside, the roentgenologist, in a sense, can look through the patient, and the bronchoscopist looks inside the lungs, and if necessary, can bring up specimens of tissues and uncontaminated secretions for laboratory study. This combination makes a very efficient diagnostic team for coping with pulmonary disease.

With the one exception of an aspirated foreign body, in which bronchoscopy is the sole treatment, the bronchoscopist serves solely as a diagnostic and therapeutic assistant to the internist and the surgeon.

TUBERCULOSIS

In cases of tracheobronchial tuberculosis, in which the chest is clinically quiescent, but the sputum still remains positive, bronchoscopy is of both diagnostic and curative value.

Tuberculosis of the bronchi appears to the bronchoscopist in the form of intensely red, swollen mucous membrane, as ulcerations, or, in cases in which there has been healing, as fibrous strictures. The method of treatment will depend on the nature of the lesion found on bronchoscopy, but is usually uniformly successful. The cases in which the tuberculosis manifests itself as a general swelling of the mucous membrane respond well to thorough shrinking by application of cocaine and adrenaline, removal of any imprisoned secretion beyond the narrowing by means of suction, followed by application of five to 10 per cent silver nitrate. The bronchial and tracheal ulcerations are treated by the application of 10 per cent silver nitrate, which is the simplest and most effective method of treatment. Fibrous strictures, if causing obstruction, can be treated by the passage of bougies or excised by means of electrocautery. Tuberculous tumors in the bronchi can be removed by the use of strong silver nitrate solution or by the use of diathermy coagulation.

As to the frequency of treatment of tuberculous lesions through the bronchoscope, in most cases once every two weeks is often enough.

LUNG ABSCESS

Pulmonary abscesses present many indications for bronchoscopy. They may be divided or considered under three main divisions: (1) prophylactic; (2) diagnostic; (3) therapeutic.

The prophylaxis or prevention of lung abscess is one field in which treatment through the bronchial speculum occupies a unique position of greatest usefulness, as demonstrated in cases of obstruction due to a foreign body. Most of such cases are potentially productive of pulmonary abscess, but *early* removal by bronchoscopy is successful in 98 per cent of cases, both as to removal and prevention of suppuration. But I wish to stress the *early* removal. Actually, every hour of delay before removal increases the possibility of pulmonary suppuration and even death of the patient, and this is especially true if the foreign body is a vegetal one, such as a peanut.

In diagnosis, the bronchoscope has the important duty of supplying the essential clinical facts of the actual living pathological conditions present in the lung of the particular patient under diagnostic study. Objective bronchoscopic appearances are important and uncontaminated specimens of tissues and exudates are useful for cultures and biopsies. For example, carcinoma and tuberculosis must be considered in the differential diagnosis of every case of lung abscess, and bronchoscopic biopsy results in absolute certainty in diagnosis. The predominant fungi or micro-organisms should be determined, and the uncontaminated specimens obtainable by bronchoscopy are invaluable in these determinations. They supply the only reliable basis for decision as to the best treatment, whether by chemo-therapy, surgery, or other means.

In acute lung abscess, bronchoscopy may initiate or provide adequate drainage, permitting the abscess to go on to spontaneous closure and healing.

In subacute and chronic abscess, the patient

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should be put on a conservative regime for a trial period. This conservative regime consists of: (1) routine supportive care including bed rest; (2) postural drainage; (3) bronchoscopic aspirations; (4) transfusions; and (5) chemotherapy.

The role of bronchoscopy in this regime is the restoration of ventilation and drainage. This is accomplished by frequent aspiration of pus and by removal of semi-solid exudates, sequestra, or obstructive granulations, by swabs or forceps.

For bronchoscopy to be useful in cases of pulmonary abscess, it is not necessary for the bronchoscope or even the aspirating tube to reach the abscess. If the abscess communicates with a bronchus, the so-called "tussive squeeze" of the lung, forces the pus upward into the larger bronchi, where it can be removed by the bronchoscope. It is therefore *important* that the cough reflex is not abolished by medication or anesthesia.

BRONCHIECTASIS

Bronchiectasis, a disease of the bronchial wall associated with dilatation, is a common disease, and bronchial obstruction and infection are the primary causes.

When the bronchoscope is first inserted through the glottis of a patient with fully developed bronchiectasis, there comes out through the scope a gush of foul smelling pus of a peculiar but unmistakable odor. This first pus is of a creamy consistency, but it gradually becomes thicker, until the last or residual pus, which is of very high viscosity and adhesiveness. When the field has been cleared by aspiration, a variety of pathology may be seen. There are dilatations, stenoses, cicatricial areas, ulcerations, and granulations with intervening areas of chronic inflamed mucosa. The walls of the bronchi are irregular in form, and the branch bronchial orifices may be gaping or partially occluded with strictures, and usually discharging in either case.

In a fully developed case of bronchiectasis, the bronchoscopic appearances as just described plus the odor of the breath through the tube are diagnostic. In the early cases, however, bronchography is essential and should never be omitted from the diagnostic study of any case.

It can be definitely stated that the incidence of bronchiectasis could be reduced to relative rarity if every patient with delayed recovery from acute infections of the lower respiratory tract, such as unresolved pneumonia, were promptly given the benefit of bronchoscopic aspiration. Many forms of pneumonia, virus pneumonia for example, are primarily diseases of the bronchial system, with atelectasis, emphysema, interstitial pneumonitis, and other secondary changes in the lungs. Prompt bronchoscopic removal of those thick tenacious secretions, which may be obstructing one or more branch bronchi in these lingering lower respiratory system infections, is a must, if bronchiectasis is to be made a rare disease. Together with this, strict attention must be paid to maintaining maximum resistance with rest, adequate diet, and chemotherapy as indicated.

Bronchiectasis can be cured in the very early stages by the same methods just mentioned for preventing the disease—namely bronchoscopic aspiration and a conservative regime to maintain maximum resistance. Otherwise bronchoscopy is just a palliative treatment and major surgery is indicated. However, routine bronchoscopy in these cases can make the patient more comfortable and obviate his being a social outcast by cutting down the odor of his breath and reducing his expectoration to some extent.

TUMORS

Before the advent of bronchoscopy, primary growths of the tracheobronchial tree were regarded as rare. This was due to the fact that at autopsy the small primary growth was often not found, being obscured or obliterated by the extensive suppurative disease secondary to bronchial obstruction. The medical diagnosis in such cases was pulmonary abscess or bronchiectasis, and this was correct as applied to the secondary pathologic changes. However, both benign and malignant tumors are frequently found in the tracheobronchial tree and bronchoscopy has shown that histologically non-malignant tumors are relatively common, although not so common as the malignant ones, which account for about five per cent of all carcinomas.

For all practical purposes, any type of benign tumor may be found in the tracheobronchial tree. One important pathologic peculiarity of all tracheobronchial growths is that, though small, they set up diffuse secondary, destructive changes in the distal portion of the lung out of all proportion to their size. When ventilation and drainage are blocked by a tumor occluding a bronchus, suppurative inflammation develops and becomes progressively worse.

The diagnosis of a tracheobronchial tumor requires a systematic procedure, including: (1) a careful history and physical examination carefully recording all chest symptoms and physical signs: (2) blood count and serologic test; (3) repeated sputum examinations; (4) Roentgen ray examination; (5) diagnostic bronchoscopy.

Bronchoscopic examination will generally demonstrate the presence of a benign tumor, but in only about 75 per cent of the cases of carcinoma of the tracheobronchial tree will the lesion be visualized. Nevertheless, the bronchoscopic findings, whether

or not a tumor is demonstrated, are always important. Bronchoscopy should inform the surgeon as to the presence or absence, and, if present, the location and extent of a neoplastic process in the accessible bronchi; the mobility or fixity of the tracheobronchial tree, and the histologic character of the lesion, when biopsy is possible. Perhaps a little too much emphasis has been placed upon biopsy as the reason for bronchoscopy. Certainly, biopsy material is important, but we should not neglect the other aspects of the bronchoscopic and clinical picture. If the accessible portions of the tracheobronchial tree are found to be normal, the surgeon then knows he can amputate any of the larger bronchi and not leave tumor tissue behind. Of course bronchoscopy should be repeated, unless a fairly certain clinical diagnosis of malignant tumor can be made, as after an interval, very often the tumor extends upward from a small branch bronchus, and a positive biopsy can be obtained.

In those cases of malignancy of the lung in which the tumor cannot be visualized through the bronchoscope, lavage of the suspected branch bronchi with normal saline, followed by aspiration and examination of the aspirated material by the Papanicolaou method and stain will occasionally make the diagnosis. This method is time consuming and requires considerable experience and skill on the part of the pathologist. However, despite its limitations, this method offers definite hope for the earlier diagnosis of bronchogenic carcinoma.

Endotracheal and endobronchial benign growths of any size can be removed through a bronchoscope and the prognosis is good. The prognosis of carcinoma and other malignant tumors of the tracheobronchial tree is not nearly so hopeless as it was a few years ago, because of the continuing development of means of earlier diagnosis and improvement in the technic of treatment. The only curative treatment at present is resection by lobectomy or pneumonectomy, so that the first step after establishing the diagnosis is to evaluate the case with respect to operability, as Roentgen-ray treatment is of very little use in the treatment of bronchial cancer.

CONCLUSION

Contraindications to bronchoscopy in disease do not exist if the bronchoscopy is urgently needed. However, serious organic disease, such as aneurysm, hypertension, or advanced cardiac disease might make bronchoscopy inadvisable, except for the removal of foreign bodies. Acute respiratory infections, such as the common cold, may render postponement of bronchoscopy advisable, and yet in acute laryngo-tracheo-bronchitis it may be urgently indicated. A moderate hemorrhage from the lungs may be a good reason for postponing a bronchoscopy, yet in case of severe hemorrhage bronchoscopic hemostasis might be needed. In general, hemoptysis is almost always an indication for bronchoscopy to determine the source and character of the responsible lesion.

ATTEND THE MID-WEST CANCER CONFERENCE, WICHITA, KANSAS, JANUARY 20-21, 1949.

REPEATED PERFORATIONS OF PEPTIC ULCERS

John C. Mitchell, M.D.
Salina, Kansas

With the advent of better surgical technic it was to be expected that operations for repeated perforations would become fairly common. However, those cases where successful operations have been performed have remained a rarity. In this review of the literature I have been able to find only 15 cases which have been successfully operated for three or more perforations.

These cases must be distinguished from those having more than one perforation at the same time. Both of these conditions obviously are more common than the literature would lead one to believe. Since I recently operated a patient for his third perforation it was impressed upon me that the old theory, that the perforation of an ulcer would effect a cure, is an error. For instance, other reviewers such as Grey-Turner estimated only 50 per cent of patients with perforations were cured, while Sullich reported that 70 per cent of his patients were not cured by a perforation. In a recent review in a large series of patients Meyer and others reported 17 per cent admissions for re-perforation.

What constitutes the best operation for patients with repeated perforations has long been disputed. Whether a simple closure or an extensive operation in the face of obviously infected areas should be done is debatable. As Cohn points out, a gastroenterostomy does nothing to prevent a re-perforation. In fact the appearance of marginal ulcers has even complicated the clinical picture. It should be interesting and helpful to review briefly these 15 cases which have been reported to date and in addition one case with three perforations which I am reporting at this time to see if there is any reason for the re-perforation of these subjects.

Ehrlich in 1928 reported a case with separate perforations. At the first operation the ulcer was closed and the omentum sewed over the closed ulcer. At the second operation a posterior gastroenterostomy was done with a modified Moynihan technic. The third operation was for a perforated jejunal ulcer about one inch distal to the gastroenterostomy which necessitated repairing the gastroenterostomy as well. The time interval was from February 1923 to January 1928. In Thurston's case at the first operation a closure was done together with posterior gastroenterostomy and an appendectomy. The second operation was for a perforation of a marginal ulcer with repair of the old operation and an anterior gastroenterostomy. The third operation was for a perforated jejunal ulcer and consisted of a simple closure and a lateral anastomosis of the jejunum at and just below the old gastroenterostomy. The time interval was from December 1921 to February 1927.

Davenport's first operation was for a perforated duodenal ulcer three inches from the pylorus and a posterior gastroenterostomy was done. At the second operation a simple closure of an ulcer at the gastrojejunal junction was performed. At the third operation the gastroenterostomy was disconnected. The fourth operation was closure of a duodenal ulcer on the anterior margin three inches from the pylorus. At the fifth operation the patient had a partial gastric resection (Polya) with relief of symptoms.

With Butler's first operation the patient had a simple closure of a perforated duodenal ulcer. Nine months later the patient was admitted with pyloric obstruction, and a posterior gastrojejunostomy was performed. The second perforation was of a jejunal ulcer, and the gastrojejunostomy was undone with the normal anatomy restored. Six weeks later the patient became obstructed and an anterior gastrojejunostomy was performed. The third perforation was another jejunal ulcer and a partial gastrectomy of the Polya type was performed. The patient has been symptom free since that time. The time interval was seven years.

Lysaght and Wilkans' first operation was for a perforation on the anterior wall of the pylorus with simple closure. The second operation was for a perforation of the same location with simple closure. Two years later, because of severe dyspepsia and vomiting, a posterior gastrojejunostomy was done. The third emergency operation was for a perforation in the same location as the previous two and again a simple closure was done. His symptoms persisted and three months later the gastrojejunostomy was undone and a wide gastrectomy performed by the usual Polya method with absolute absence of all his previous symptoms. The length of time was from February 8, 1932, to August 18, 1936.

Mahoney and Sand's first operation was for a perforated duodenal ulcer on the anterior surface of the pyloric area with simple closure. The second operation was for a perforation on the anterior surface of the duodenum close to the pylorus with simple closure and omentum tacked over the suture line. The third operation was for perforation on the stomach side of pylorus with simple closure and omentum tacked over the suture line. The time interval was from 1916 to 1936 and all the per-

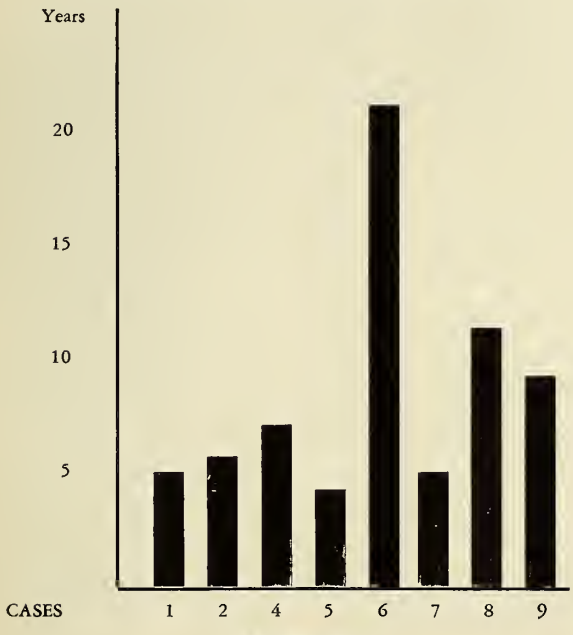
forations were in an area about three centimeters in diameter on the anterior surface of the pyloric area.

Harten-Greaven's first operation was for a perforated gastric ulcer low on the lesser curvature with simple closure. The second operation was in the same location of ulcer and a simple closure again done. The third operation was for a perforation in the same location and again simple closure. The time interval was from September 1932 to January 1937. Patient was symptom free at the time of the report.

Cohn's first operation was for a perforation on the lesser curvature of the stomach near the pylorus. The ulcer was inverted with a purse string suture and the omentum sewed over the site. The second operation was for a perforation of the same ulcer about two centimeters in diameter which was simply closed. The third operation was for a perforation on the anterior surface of the duodenum and the ulcer was closed and a posterior gastroenterostomy done. The time interval was from March 5, 1928, to May 24, 1939, and three months later the patient entered the hospital with recurrence of ulcer symptoms.

The type of closure, site of perforation, and length of time between perforations of the eight additional perforations reported by Meyer and others was not contained in their report and therefore can not be compared with the other cases.

Years Involved by Recurring Perforations in 8 Cases.



CASE REPORT

A 55-year-old white male was admitted to the hospital with a chief complaint of pain in the abdomen and vomiting. Four hours previous to admission, while working as a butcher in a grocery store, he had a sudden onset of epigastric pain which was so severe he had to quit work. After sitting down for a few minutes he felt nauseated, but the nausea passed and he felt well enough to walk across the street to a hotel where he was living. He remained in bed with the pain growing progressively worse. Two hours later he had the desk clerk call the doctor.

The patient stated that he had had two operations performed for ulcers, and that for the past year had gastric distress which he relieved with soda without consulting a doctor.

Physical examination revealed a thin white male in severe pain and acutely ill. Temperature 98.4, pulse 90, and regular. Blood pressure 110/70. Respiratory rate 28. Head essentially negative. Mouth, edentulous. Throat, negative. Chest, lung fields clear, no rales or areas of dullness to percussion. Expansion free and equal. Heart, both sounds clear. Pulse, regular but fast. Abdomen, moderate rigidity of the right rectus muscle with two old healed right rectus scars. No masses palpable. Rectal examination, no masses or tenderness. Urine analysis was negative for albumin and sugar. There was an occasional hyaline cast with 10 to 15 pus cells per high power field. Leucocytes numbered 24,650 with 6 stabs, 76 segmented cells, 16 lymphocytes and 1 monocyte. In view of the sudden onset, moderate rigidity of the right rectus, and leucocyte count of 24,650, it was felt advisable to do an immediate exploratory operation.

Abdominal exploration was carried out under open drop ether through a right rectus incision, excising one of the old scars. The peritoneal cavity was opened and a small perforation was found on the anterior surface of the duodenum about one-half inch below the pylorus. The scar from one of the previous perforations could be seen on the anterior surface about two centimeters above the present perforation. The perforation was closed with catgut overlapping Lembert sutures. A piece of omentum was tacked over the suture line. Fifty thousand units of penicillin were instilled into the peritoneal cavity and the abdomen closed without draining. The peritoneum was closed with 00 plain continuous catgut sutures. The fascia was closed with interrupted No. 20 cotton sutures and the skin closed with No. 50 cotton on end mattress sutures.

The patient was returned from the operating room in good condition and put on 20,000 units of penicillin every three hours and continuous gastric suction. The patient made an uneventful recovery with the highest post-operative temperature on the fifth day of 101.6. Temperature returned to normal

the next day and stayed there. The gastric suction was discontinued on the second post-operative day and on the fourth post-operative day the patient was allowed to sit up in a chair. He was dismissed from the hospital on the eighth post-operative day, ambulatory and symptom free.

REVIEW OF PREVIOUS OPERATIONS

On October 26, 1937, patient was operated at Wichita, Kansas, for a perforated duodenal ulcer and had a simple closure of the perforation and an uneventful post-operative recovery. He was admitted to the Sedgwick County Hospital, Wichita, Kansas, on October 17, 1940, with a pre-operative diagnosis of a perforated peptic ulcer. He was operated and his findings were free fluid and gas in the peritoneum, numerous adhesions with a punched out perforation on the anterior surface just proximal to the gastroduodenal junction. Perforation was closed by a simple closure and the patient made an uneventful recovery.

SUMMARY

Eight previous cases are reviewed with this case just reported, making nine cases of three or more perforations of peptic ulcers. This condition occurs often enough that it is hoped that the prevention of recurrences of perforations may be decreased by considering these cases.

The length of time varied markedly with the average years involvement in the nine cases being 7.44 years. The shortest period of time was four years and the longest period 20 years. Types of closure of the 32 perforations were as follows:

Simple closure	23 cases
Gastroenterostomies	6 cases
Partial gastric resection	3 cases

It is interesting to note that there were six cases of perforations of jejunal ulcers from the previous gastroenterostomies.

It would seem that probably the best procedure in this type of patient would be the simple closure of the perforated ulcer at the time of the perforation and if the perforation should recur have the patient return at a later date for a partial gastric resection.

REFERENCES

1. Gosset, J., Jouameau, M., and Allamand, J.: Repeated Perforations of Gastroduodenal Ulcers, Presse Med. 46:1556, 1938.
2. Grizzaud, H.: Repeated Peforation of Gastroduodenal Ulcer, Presse Med. 47:45, 1939.
3. Bottin, J.; Repeated Perforations of Gastroduodenal Ulcer, Presse Med. 47:45, 1939.
4. Ross, A., and LeTourneau, C.: Perforated Peptic Ulcer, Canad. M.A.J. 41: 473, 1939.
5. Pearse, H. E.: Recurrent Perforation of Peptic Ulcer, An. Surg. 96:192, 1932.
6. Masson, J. C., and Simon, H.: Multiple Perforated Gastric Ulcers, Minnesota Med. 10: 289, 1927.
7. Lewisohn, R.: Persistence of Duodenal Ulcer Symptoms After Perforation, Surg., Gynec. & Obst. 64: 172, 1937.
8. Graves, A. M.: Perforated Peptic Ulcer in German Clinics, Ann. Surg. 98:197, 1933.
9. Rhodes, G. K., and Collins, D. C.; Acute Perforated Peptic Ulcers, California & West, Med. 39:173, 1933.
10. Judin, S. S.: Partial Gastrectomy in Acute Perforated Peptic Ulcers, California & West. Med. 39:173, 1933.
11. Davenport, G.: Five Operations in Twelve Years for Perforated Ulcer, J.A.M.A. 97:99, 1931.
12. Butler, H.; Repeated Perforations of Peptic Ulcer, Brit. J. Surg. 21:145, 1933.
13. Lysaght, A. C., and Wilkans, W. B.: Repeated Perforations of Peptic Ulcer, Lancet 1:809, 1937.
14. Cohn, Roy: Repeated Perforations of Peptic Ulcers, Surgery, May:688, 1941.
15. Finsterer, H.: Results of Repeated Operations Upon the Stomach, Surg., Gynec. & Obst. 68:330, 1939.
16. Thurston, J.: Repeated Perforations of Peptic Ulcer With Recovery, U.S. Vet. Bur. Bull. Med. 5:131, 1929.
17. Meyer, K. A., Werbel, E. W., Kozoll, D. D.: Surgical Sequelae Following Recovery From A Perforated Peptic Ulcer, The Surg. Clin. of N.A. Feb., 93, 1947.
18. Koucky, J.: Consecutive Perforation of Duodenal Ulcer, S. Clin. North America 6:1053, 1926.
19. Henderson, E.: Recurrent Perforated Duodenal Ulcer, Kentucky M.J. 27:340, 1929.
20. Ehrlich, P.: Repeated Perforations of Peptic Ulcer with Recovery, J.A.M.A. 90:1870, 1928.
21. Mahoney, L., and Sands, R.: Recurrent Perforation of Peptic Ulcer, Am. J. Surg. 37:123, 1937.
22. Hearton, Graven: Recurrent Perforation of Gastric Ulcer, Brit. M.J. 1:1070, 1937.

THE CARE OF INJURIES TO THE SEMI-LUNAR CARTILAGES OF THE KNEE

Thomas P. Butcher, M.D.
Emporia, Kansas

The diagnosis of injury (usually tear and dislocation) of the semi-lunar cartilages of the knee and also the reason for operation upon these cartilages depend essentially upon one finding, and that is locking of the knee so that it cannot be fully extended. By "locking" is meant a simple mechanical derangement similar to what occurs if a piece of kindling wood be placed within the folds of a door hinge and attempt made to close the door. There is pain upon attempt to extend the knee, and tenderness over the anterior margin of the injured cartilage.

Other findings may be present or absent. These may include distention of the joint with free fluid (usually present to some extent), and signs of injury to collateral or cruciate ligaments. The history usually includes some account of accidental twisting or lateral or medial bending of the partly-flexed knee such as may occur when a running athlete is struck from the side or when uneven ground throws the weight off balance.

Multiple episodes of "locking," relieved spontaneously, or by various manipulations, may be reported in chronic cases. There may have been long intervals of remission of symptoms. If, however, more than one episode has occurred, the chances of spontaneous cure are remote and operation is usually indicated, both because of the immediate distress to the patient and because the trauma to the joint surfaces from recurrent locking may lead to irreparable damage. X-ray is of value chiefly to exclude other lesions.

Preparation for surgery may well include preoperative quadriceps exercises so as to expedite these after operation. A 24-hour sterile preparation is recommended.

At operation two rubber tourniquets are employed —one to wrap the leg while elevated, and the other to bind the thigh, thus providing a bloodless field.

A five cm. incision is placed one cm. to the side of the patella and the tibial plateau identified. The joint space is opened and inspected. The torn cartilage is detached at its anterior pole and dissected posteriorly and, if possible, thus removed. A small posterior tag is not important. In some knees, however, there is insufficient space for this procedure and a posterior incision is made along the back of the femoral condyle above the insertion of the hamstrings. The cartilage is then freed laterally and delivered through this opening and the posterior pole dissected out and the entire cartilage removed. Closure consists of a few loose sutures in the synovia and closer interrupted non-absorbable sutures in the fascia, without drainage. Two four-inch ace bandages are used over the dressing and adjusted as necessary for comfort.

Prophylactic penicillin may be used after operation.

Occasionally postoperative aspiration of blood and fluid from a distended knee joint is indicated and should be done without hesitation. Distention should not be permitted to continue.

Postoperative pain is often severe, but early quadriceps exercise is commenced the day after operation and weight bearing permitted in four to eight days. A splint or cast is not recommended. Simple foot weight-lifting with the patient seated on a desk or table is started within a week and increased as rapidly as tolerated until 40 to 60 pounds are being successfully lifted. The patient should, in four to six weeks, be able to lift several more pounds with the operated leg than with the good one.

The psychological aspect of recovery from knee surgery cannot be over-emphasized. The poorest candidate is the G.I. who dislikes the Army—his knee may, quite literally, never recover fully. The best candidate is one who has no insurance claim and who is really interested in resuming normal activity.

ATTEND THE MID-WEST CANCER CONFERENCE, WICHITA, KANSAS, JANUARY 20-21, 1949.

MID-WEST CANCER CONFERENCE

A program covering various important phases of cancer problems has been arranged for the physicians of Kansas and adjoining states by the Kansas Medical Society through its Committee on Control of Cancer. The Kansas Division of the American Cancer Society is financing the meeting as a part of its program of professional education in Kansas, and members of the medical profession are extended a cordial invitation by the sponsors to attend this, the first *Mid-West Cancer Conference,* which will be held in the Broadview Hotel, Wichita, on Thursday and Friday, January 20 and 21, 1949.

In addition to the four scientific sessions in the mornings and afternoons, there will be noon round-table discussions for questions, and on Thursday evening a banquet for the doctor guests and their ladies. The speaker for this occasion will be Dr. Charles S. Cameron, the Medical and Scientific Director of the American Cancer Society.

The Women's Auxiliary of the Sedgwick County Medical Society has arranged entertainment for the visiting ladies, including luncheons on both days of the meeting.

The following guest speakers have been engaged for the scientific meetings; each will make two formal presentations, and participate in the round-table discussions:

Dr. Alexander Brunschwig, New York
Dr. Nathan A. Womack, Iowa City
Dr. Lauren V. Ackerman, St. Louis
Dr. Herbert E. Schmitz, Chicago
Dr. Talbert Cooper, Rochester, Minnesota
Dr. Walter L. Palmer, Chicago
Dr. W. Walter Wasson, Denver
Dr. Morris Belkin, Bethesda, Maryland

The full program will be sent to all members of the KMS in the near future. We of the Committee hope that a large number of you will arrange to be present for the entire Conference, which should be a pleasant as well as a profitable two days.

Prepared by Committee on Control of Cancer

LET'S ABOLISH PERTUSSIS

Pertussis appears sporadically in all communities and epidemically in some. With its epidemic appearance much medical attention is focused on the disease, but at the conclusion of the outbreak vigilance is relaxed, and the disease remains as a constant definite menace to the health of our children. Pertussis may be seen at any time of the year even though it is essentially a respiratory tract affliction. Because of its catarrhal characteristics, it is readily communicable, its communicability approaching that of measles. Due to the difficulty of making a definite diagnosis early, the opportunity for spread from one to another is enhanced. Individual susceptibility is great. Newborns, for instance, who usually have a temporary immunity to such illnesses as measles and diphtheria, do not have demonstrable antibodies against pertussis. Instances of pertussis have been reported in all age periods from two weeks to 70 years.

Pertussis for the most part appears in the younger age periods however. Ten per cent of cases occur under the age of one year, and 50 per cent of cases under the age of four years. It is in these age periods that we are actively immunizing our children, and it is probable that the sooner the immunization procedures are carried out the sooner the immunity is established. A vaccine that is prepared from Phase 1 organisms which are highly antigenic should be employed, and a total dose of 80 billion organisms should be injected. Stimulating injections at intervals should be used to maintain the basic antibody titre thus established.

Pertussis antiserum, given early, will usually completely prevent the appearance of the disease in the non-immune exposed infant. Passive pertussis protection may be produced by the injection of: hyper-immune human serum, dosage 10 to 30 cc; or human serum globulin fraction, dosage 2.5 cc; or anti-pertussis serum (rabbit), dosage 5 to 10 cc. A second equal dose should be given in five days if child was first seen within 48 hours of exposure, or in three days if seen after 48 hours.

TREATMENT WITH HUMAN IMMUNE SERUM IS EFFECTIVE EARLY IN THE DISEASE.

The accepted dosage is the same as for the exposed child, but three injections are given at 36 to 48-hour intervals. Later treatment is varied and depends on the complications that ensue. The use of the hyper-immune serums coupled with the administration of sulfadiazine will hasten the disappearance of the organism from the respiratory tract. In the early stages the vaccine may be beneficial if the sufferer has previously had the basic immunity established by routine immunization. It is hoped that further experience with streptomycin inhalation techniques may reveal that this antibiotic is by far the most potent weapon in our therapeutic armamentarium to date. If so, perhaps this usually innocuous, but at times devastating disease may, in the future, be relegated to the group of medical curiosities.

Prepared by the Committee on Child Welfare

PRESIDENT'S PAGE

Dear Doctor:

I hope this page reaches you when you are just about to the height of your Christmas planning. There really must have been a purpose back of the statement, "It is more blessed to give than to receive."

Since this is the last issue of the Journal before the legislature meets, it is time to state that the chips are down on the Three Point Health Program. I hope you were sufficiently impressed by the recent reprint you received to realize that each of us has an important part in this progressive scheme.

I realize that you and I may have shared the same views in the past about some matters concerning the medical school. I hope you can share with me, now, the opinion that this program is the most forward looking one in the nation. I know for a fact that other states are praising this program very highly. They are referring to it as the Kansas Plan and are frankly admitting that if they had operated under such a plan in the past many problems facing the profession today would never have developed.

Assuming that you are in the giving mood, I hope you will spend some time explaining to your friends about this program, get them to talk to their friends and particularly their legislators right away. After all this program is for the people of Kansas. They should know about it and help to obtain it. If you think I am wrong in helping to promote this movement, please write me your views.

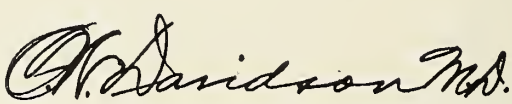
The public looks to the medical profession for leadership in matters relating to health. We cannot afford to be too slow or indifferent. Now, as never before, we need to present a united front in promoting our Blue Cross-Blue Shield programs. In order to assure adequate medical personnel we must lend our support to expansions of the "factory." I ran into a few lines the other day that changed my thinking on the size of the task, "It may not be the size of the mountain that makes the climb so difficult as the grain of sand in the shoe."

I thought I would get to some other items about the Society but space is limited. You will find many of the other things I would mention expressed more clearly elsewhere in the Journal.

It may seem childish to make such a Christmas wish, but right now I cannot think of anything that would cheer me more than a letter from you.

Wishing you and yours the Merriest Christmas and the Happiest New Year you have ever had, I am

Sincerely,



President.

EDITORIALS

Court Denies Osteopaths' Request

Between April 19 and April 22, 1948, the trial of a case filed by osteopaths of Kansas against the Governor and the Attorney General was heard in Topeka. Three United States Circuit Court judges heard the testimony of eight or nine osteopaths and a comparable number of doctors of medicine regarding whether or not the Supreme Court in this state had been arbitrary and capricious in its decision to limit the practice of osteopathy. The plaintiffs pleaded that their rights under the 14th amendment to the Constitution of the United States had been violated in Kansas.

On November 16, 1948, a verdict was given, stating in part that "it is ordered and decreed that the prayer of the plaintiffs for injunctive relief be and the same is hereby denied, and the action is dismissed at the cost of the plaintiffs." The judgment and decree was signed by the three judges hearing the case.

At the same time they issued a preliminary statement entitled "Findings of Fact and Conclusions of Law." This document outlines various points around which the case was argued and among those the following statements may be found: "It is peculiarly within the province of the State of Kansas to classify and regulate the right to pursue a calling or profession having to do with the public health. The nature of the classification and the requisite qualifications for license to pursue a profession within such classification must largely depend upon the judgment of the State. The only limitation imposed upon the exercise of that power by the due process and equal protection clauses of the Constitution of the United States is that the classification shall not be arbitrary; shall bear some reasonable relationship to the legislative object, and shall not be discriminatory in its application and effect within the prescribed classification. If the required qualifications to pursue a calling or profession are obtainable by reasonable study and application, they are not arbitrary or unreasonable. . . .

"The fundamental difference in the scientific approach of the osteopathic and medical profession furnishes a valid basis for the classification made out by the challenged statute. . . .

"The classification, and the regulation based thereon, are not arbitrary or unreasonable; that the restrictions imposed upon each classification do not operate to deprive the osteopathic profession of due process or equal protection of the laws. The injunctive relief sought is therefore denied."

/s/ Orie L. Phillips
U. S. Circuit Judge
/s/ Walter A. Huxman
U. S. Circuit Judge
/s/ Alfred P. Murrah
U. S. Circuit Judge

It is presumed that a detailed opinion from the court will be prepared, possibly within a month. When available, the Journal will carry this information to the membership. In the meantime, the case probably is not closed at this point. Attorneys for the plaintiffs declared during the trial that the case would be appealed to the Supreme Court of the United States should this court find against them. If they are still of the same opinion, it may be some time before this question is finally determined.

Serological Tests for Syphilis

Upon the 25th anniversary of the discovery of the Kahn test, Reuben L. Kahn, M.S., Sc.D., was invited to write an article for the Journal of the Michigan State Medical Society. This appeared in the issue of October, 1948, in which all scientific papers pertained to the general subject of syphilis, its diagnosis and treatment.

Dr. Kahn tells of his search for a serological test that would be more accurate and more easily performed than others that were available 25 years ago. He also explains that the Kahn test still leaves much to be desired and that research is continuing for an infallible index of the presence of syphilis. Although the recorded specificity in the vast majority of laboratories shows excellent results, in practice the problems involving interpretations of positive serological results are greater than statistics would indicate. By way of example, in a group of some 63,000 young men separating from the armed forces with no history of previous treatment for syphilis but with positive or doubtful tests upon separation, 66.4 per cent proved not to have syphilis. This is perhaps not an altogether valid illustration because presumably syphilis had already been combed out from this group, but the figures do serve to emphasize the necessity of careful scrutiny of any positive test not corroborated by clinical history or physical examination.

Although a number of serologists are working on the problem of developing techniques to differentiate positive tests due to the presence of syphilis from biological positives, there does not yet appear to be any completely reliable method by which positive reactions can be definitely determined to be caused by syphilis. The following steps are recom-

mended in all instances where there is reason for doubt.

A positive test should be correlated with other evidences of syphilis by way of a careful history including epidemiological and physical examination. In the absence of evidence along those lines the character of the serological reaction is of importance. As a rule, false reactions tend to be of low titre. Where the titre is doubtful or as low as 1.1, tests should be repeated.

In such instances the quantitative estimation of the titre or amount of reagin should be obtained immediately. Testing by other procedures is also helpful because false positive reactions often tend to be positive by flocculation techniques and negative by complement fixation or vice versa. False positive reactions often decrease markedly in titre within a few days. On other occasions it may take six months. Situations of this kind require courage on the part of the physician and patience on the part of the patient because the validity of these observations is dependent on the withholding of treatment for syphilis. If syphilis is present, the titre of reagin, as a rule, either stays at a constant level or increases, but in cases of false positives the titre will probably vary.

Variations are to be expected when tests are made in very early or latent syphilis where the results are generally unreliable. It is only after five or six weeks following exposure that a negative blood test can be considered significant. Serological tests in certain types of late syphilis can also be confusing. Tabes dorsalis is frequently associated with a negative blood test, as can be late cardiovascular and osseous syphilis. In cases of paresis the blood test is usually positive, however. Even greater difficulties are encountered in the evaluation of serological reports of the newborn, except that the general theory that the titre remains constant in the presence of syphilis will hold in such cases.

Dr. Kahn is still working toward developing a more accurate test. He suggests several that might be used in conjunction with the standard Kahn, such as the "presumptive test." This is 10 per cent more sensitive but it also gives more false positives. Its especial value lies in affording a laboratory check on serodiagnostic tests and in providing a more accurate evaluation in treated cases where the standard test gives negative reactions. The "quantitative test," also supplementary to the standard procedure, may be used in a similar manner but under different circumstances. Should the serodiagnostic test continue to give a treated patient a four-plus reaction, by the use of this procedure the physician could determine whether the quantitative titre is being reduced. Others are also mentioned, including the qualitative and quantitative spinal fluid tests and several micro procedures.

Other research is also occupying his attention. He hints of work not yet published concerning a universal serologic pattern. Repeated examinations of the same individual seem to indicate that this pattern remains unchanged under conditions of health. In certain diseases the pattern undergoes characteristic changes. At present four diseases have been studied serologically with the universal reaction: syphilis, leprosy, malaria and tuberculosis. According to Dr. Kahn, present indications are that the reaction is of practical value particularly in the last three diseases and that other conditions are under investigation.

A Positive Answer

Suppose the election had gone differently—but there is no purpose in considering that subject. Problems facing medicine might have been less serious, or they could have been increased. It is more to the point to begin thought about these problems as they appear today.

This much is certain. The President will recommend to Congress the passage of a bill whereby health needs may be financed on a federal level through increased Social Security taxes. Such a program will be called by many names, depending upon the speaker's point of view. It will be socialized medicine or it will be federal health insurance; it will be bureaucracy or a state operated program with federal assistance; it will be socialism in its baldest form or a service performed by a benevolent government.

And yet none of those statements are necessarily true for it is not a foregone conclusion that compulsory participation in government medicine will be enacted. Even if it is, there remains a wide range of possibilities. The program might largely be administered on a state level and could possibly be set up on a strictly insurance basis. The government might provide benefits through existing Blue Shield organizations. A means test might even be written into the bill.

In other words, it will not be all white nor will it be all black, and very definitely does the medical profession still have an opportunity of directing the course Congress will take. Given full information, Congress might well reject all ideas involving compulsory health insurance. Failing this, the medical profession could assist in molding the course the United States will take. As long as we are convinced that the system of free enterprise in the practice of medicine is better than medical care supplied by the government, we should continue to voice our objection to such plans. We must be bold and per-



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RESEARCH IN THE SERVICE OF MEDICINE

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sistent in our objection, but we must also be logical from the layman's point of view.

This is what we mean. If we can justify our opinion that the patient will receive better care under a system of free enterprise, then is it not logical that we should explain this fact to the public? In the face of the enormous expense of administering such programs in other nations and our own genius for waste, should not the expense of socialized medicine be an argument?

We have greater obligations than these, however. The public will ask us for a constructive alternate to the program of federal control. Our first positive reply is to furnish our patients with that friendly personal, considerate type of care that characterized the family doctor of a generation ago. A second positive point is our active endorsement of voluntary insurance programs which will accomplish all the federal government proposes to do and eliminates compulsion. In the third place, as citizens in a country where free enterprise is still in operation, we owe our neighbors an interest in civic affairs and in problems other than medicine affecting all of us.

And, finally, we now have a constructive answer to the problem of physician shortages. Kansas can educate enough doctors to supply its needs for all time to come. The solution lies in the adoption of the Kansas Plan. It is urged that every physician take time to understand this program and to ask questions until he does understand it. He should then explain the plan to his family and friends and business associates. The next step is to explain the purpose of this progressive program to the legislature.

A small amount of action by each physician during the next 60 days can assure the success of the Kansas Plan. Once achieved, Kansas can then look forward to solving its own problems with reference to physician supply without asking the help of the federal government. And, incidentally, one of the strongest arguments put forth by the proponents of federally operated plans will have been answered.

Kansas Academy of General Practice Elects

The newly-organized Kansas Academy of General Practice, a constitutional chapter of the American Academy of General Practice, elected officers at a meeting held at Wichita November 14. The following were named to serve until May, 1949: president, Dr. Clyde W. Miller, Wichita; president-elect, Dr. L. B. Gloyne, Kansas City; vice president, Dr. Charles L. White, Great Bend; secretary, Dr. Albert C. Harms, Kansas City; treasurer, Dr. George L. Thorpe, Wichita.

Dr. Franklin D. Murphy, dean of the University of Kansas School of Medicine, was elected an honorary member because of his recent interest in providing general practitioners for rural areas of the state.

Purposes of the academy are: 1. To promote and maintain high standards of the general practice of medicine and surgery; 2. To encourage and assist young men and women in preparing, qualifying and establishing themselves in general practice; 3. To assist in providing postgraduate courses for general practitioners.

Kansan President of A.C.S.

Dr. C. C. Nesselrode, Kansas City, received new recognition of his work in the field of cancer when he was named president of the American Cancer Society at its annual meeting held in New York City last month. He had been a member of the executive board during the past two years and had served the society as vice president in 1946.

This honor came to Dr. Nesselrode a short time after the Kansas Division of the American Cancer Society had recognized his achievements in the field. The Kansas group, at a meeting held in Wichita October 27, gave a dinner in his honor. Dr. Nesselrode had been president of the Kansas Division since its organization, and for many years had served as chairman of the Kansas Medical Society's Committee on Control of Cancer.

No other Kansan has ever served as chief executive of the American Cancer Society, and the Kansas Medical Society is proud of the fact that one of its members was selected for that honor this year.

New Fellows of A.C.S.

A list of initiates who were received into fellowship in the American College of Surgeons at a convocation held at Los Angeles in October shows the following from Kansas: Dr. Leon L. Bernstein, Topeka; Dr. Millard W. Hall, Wichita; Dr. James S. Hibbard, Wichita; Dr. Melvin A. Rabe, Leavenworth; Dr. Leslie L. Saylor, Topeka; Dr. Charles K. Wier, Wichita. These were included in the largest class of initiates since 1914, 943 fellowships and seven honorary fellowships.

In order to qualify for fellowship in the American College of Surgeons, a surgeon must be a graduate of an acceptable medical school; be licensed to practice in his respective state, or be a medical officer of a federal service; must have completed three or more years in training in surgery in hospitals approved by the College; must devote at least half of his practice to surgery, and must have spent seven or more years after graduation in medicine, devoted to special training and practice.

Pharmacopoeia Supplement Available

A second supplement to the U. S. Pharmacopoeia XIII has been printed and is now available on request to all who have the volume. Copies may be secured from the secretary, Adley B. Nichols, 4738 Kingsessing Avenue, Philadelphia 43, Pennsylvania.

Chicago a Medical Center

Increased medical activities in Chicago and Cook County during recent years have made that area a recognized medical center, and the Chicago Medical Society, in an effort to advertise that fact, now publishes a news letter, "This Week in Chicago Medicine," which will be sent to all who request it from their office, 30 North Michigan Avenue, Chicago 2, Illinois. The weekly schedule lists clinics. conferences, journal readings, medical meetings and other activities in Cook County hospitals, medical schools and medical organizations.



Further evidence of the safety of Benzedrine Sulfate therapy

More data, showing that Benzedrine Sulfate, in proper dosage, produced no toxic effects, have lately been published in a study by Caveness.[1]

He gave the drug for 14 consecutive weeks to 23 unselected hospital patients whose ages *averaged 65 years.* Daily dosages over the period ranged from 5 to 30 mg. The author observes:

". . . no significant changes were noted in the cardiovascular, urinary, hematopoietic, or respiratory systems . . ."

From this study, it would appear that Benzedrine Sulfate may be safely used in the treatment of depression in the aged.

1. New York State J Med. 47:1003

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CASE REPORTS FROM THE UNIVERSITY OF KANSAS MEDICAL CENTER*

Edited by R. E. Stowell, M.D., and E. B. Taft, M.D.

Dr. Stowell: Instead of our usual presentation of cases we have some guests who have agreed to give us their points of view on the use of the exfoliative cytological techniques in the diagnosis of cancer, a subject which is eliciting widespread interest and comments. Dr. W. A. Grosjean of Winfield, Kansas, who was one of the representatives from this area at the meeting recently held in Boston by the American Cancer Society[1] to discuss this problem, will be the first speaker. Then Dr. R. W. Kerr of Kansas City, Missouri, Dr. C. A. Hellwig of Wichita, Kansas, and Dr. H. M. Floersch of Kansas City, Kansas, will give us the benefits of their experience.

Dr. Grosjean: Before I discuss this problem in detail, may I give you an idea of my experience with the technique. I became interested in this problem about three years ago, but it was not until March, 1946, after preliminary study of the method, that much work was undertaken. Thus, any figures I may quote from my experiences will be since March, 1946.

We have studied approximately 5,000 slides in our clinic from somewhat more than 2,000 patients. Many of the smears examined were just routine and the patient did not necessarily have symptoms in the part of the body from which the secretions for smear were obtained. Most of the smears were of vaginal secretions.

I am not sure that it is of value to quote statistics on a diagnostic method such as this. For instance, in the case of vaginal smears, if one said that those obtained from 1,000 women who had no symptoms suggesting gynecologic disorder were all negative, one's percentage error would not be great. If, on the other hand, one did the same thing with slides from 1,000 women with complaints referrable to the pelvic organs, one's percentage of error might be considerable.

It has been well established, however, that the method is quite satisfactorily accurate in the hands of trained personnel. This is one of the points brought out by the meeting in Boston. Probably the greatest importance of this type of examination is that it is a definite aid to establish a diagnosis, particularly in early carcinoma of the uterus and in certain other obscure cases. In the past there was considerable question as to the reliability of the method. There are still skeptical persons, but the majority of those who attended the meeting, particularly those who have had the most experience with the method, were agreed that it is reliable. I might say that the clinicians, who comprised about 30 per cent of the attendance, were the most enthusiastic. It was conceded, however, that one should not rely solely on the examination of a smear to establish a diagnosis. All those who have had much experience with the technique have reiterated that a diagnosis by smear should be confirmed by routine methods such as biopsy.

Another problem which was discussed was that the method might get a bad name from commercialization. Already there has been too much publicity in lay magazines of the sort which has led the readers to believe that all they have to do is to have a smear examined. If it is negative, then they can forget their troubles. At present some of the commercial houses are selling kits with which any doctor, for instance, one in a small community, can make a smear and stain it. It is suggested that any one can look at such a smear and say that the patient does or does not have cancer. Thus, in the near future a number of people without sufficient training may be attempting to examine smears.

That brought up another problem: how to find enough people who understood this method to teach the technicians who will be reading the slides. It was decided that the instruction should be carried out in departments of pathology. It seems thus that at present the crux of the problem is to find teachers who will teach teachers to teach technicians.

Another problem which was discussed in some detail was whether it is feasible to use this method as a screening test as some propose. It is said that vaginal smears should be examined periodically on all women in the way serological tests for syphilis are run on all hospital patients. It hardly seems economically sound. One of the most important drawbacks is that the examination of the smears takes so much time. They are simple to make and to stain, but it takes time and considerable experience to read the slides.

I should like to present a few case histories to show why I think this technique has sufficient value so that we should continue to use it. In our series there have been seven patients on whom the diagnosis of genital cancer was made and on whom it would not have been made at that time if it had not been for vaginal smears. Seven patients since March, 1946, perhaps do not seem very many, but the establishment of such a diagnosis was pretty important to the women who had the cancer.

These seven were patients who had no gynecological symptoms at all. One came to the clinic because

*Cancer teaching activities aided by a grant from the National Cancer Institute.

The Association for the Study of Internal Secretions Announces a Postgraduate Assembly in Endocrinology

OKLAHOMA CITY, OKLAHOMA—SKIRVIN HOTEL—FEBRUARY 21-26, 1949

The faculty will consist of prominent researchers and clinical endocrinologists in the various branches of the medical sciences, gathered from the United States and Canada and will include the following:

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Dr. Edwin B. Astwood, Research Professor of Medicine, Tufts College.

Dr. J. S. L. Browne, Professor of Medicine, McGill University.

Dr. Edward A. Doisy, Professor and Head, Department of Biochemistry, St. Louis University School of Medicine.

Dr. Roberto Escamilla, Associate Clinical Professor of Medicine, University of California Medical School.

Dr. Laurance W. Kinsell, Associate Clinical Professor of Medicine, University of California Medical School.

Dr. C. N. H. Long, Sterling Professor of Physiological Chemistry and Dean, Yale University School of Medicine.

Dr. E. C. Hamblen, Associate Professor of Obstetrics and Gynecology, Duke University School of Medicine.

Dr. Cyril M. MacBryde, Associate Professor of Clinical Medicine, Washington University.

Dr. E. Perry McCullagh, Chief Dept. of Endocrinology and Metabolism, Cleveland Clinic.

Dr. Harold L. Mason, Professor Physiological Chemistry, Mayo Foundation, University of Minnesota.

Dr. Warren O. Nelson, Professor of Anatomy, Wayne University.

Dr. Edward Rynearson, Associate Professor of Medicine, Mayo Foundation.

Dr. Hans Selye, Professor of Experimental Medicine, University of Montreal.

Dr. E. Kost Shelton, Associate Professor of Medicine, University of Southern California.

Dr. Paul M. Starr, Clinical Professor of Medicine, University of Southern California.

Dr. Willard O. Thompson, Clinical Professor of Medicine, University of Illinois College of Medicine.

Dr. George Thorn, Hershey Professor of Physics, Harvard Medical School.

Dr. Henry H. Turner, Associate Professor of Medicine, University of Oklahoma School of Medicine.

Dr. Lawson Wilkins, Associate Professor of Pediatrics, Johns Hopkins Hospital

This course will be a practical one of inter est and value to the specialists and those in general practice. The program will consist of lectures, clinics and demonstrations. Ample time will be given to questions and answers at the end of each session, and registrants are encouraged to contact members of the faculty for individual discussions.

A fee of $100 will be charged for the entire course and the attendance will be limited to 100. REGISTRATION WILL BE IN THE ORDER OF CHECKS RECEIVED AND WILL CLOSE ON FEBRUARY 1, 1949. Should there be an insufficient number of applicants to fill the course, the registration fee will be immediately refunded in its full amount.

Please forward application on your letterhead, together with check payable to The Association for the Study of Internal Secretions, to Henry H. Turner, M.D., Chairman of the Postgraduate Committee, 1200 North Walker Street, Oklahoma City, Oklahoma, before February 1, 1949.

Applicants should make reservations directly with hotels of their choice. Some of the better downtown hotels in Oklahoma City, listed according to their proximity to the Skirvin, are: Skirvin Tower, Huckins, Wells-Roberts, Biltmore and Black.

of arthritis. Another, who was 35, came in because of an allergy. A third was a nurse who had an unsuspected carcinoma of the cervix. Another on routine examination was found to have a cervical erosion which was not particularly suspicious; nevertheless, a biopsy was taken and a smear was made. The biopsy was negative but the smear was positive. She was asked to return to the clinic and a repeat biopsy showed a carcinoma. Then there was a woman past the menopause on whom a negative biopsy was taken in Baltimore. She spotted several times after that so when she returned home she came to the clinic and had a smear which was positive. There was no sign of carcinoma on physical examination, but she was treated with radium followed by surgery for an endocervical carcinoma because of the appearance of the cells on the smear. I am sure it was an endocervical lesion but could not prove it following radiation. I took the smears from that patient to Dr. Papanicolaou, and he was positive it was carcinoma.

Another interesting patient was a woman of 53 who had been having minimal postmenopausal vaginal bleeding. Her physical findings were negative; her uterus was not enlarged. She had smears which were repeatedly unquestionably positive. Since she was my patient, and since I was willing to take the responsibility of doing surgery without a biopsy, which I certainly do not advocate, I did a hysterectomy. She was found to have a large endometrial polyp hanging from one cornu and in the other a small carcinoma about three mm. in diameter. It occurred to me later that if I had curetted this patient to establish the diagnosis before operation I should probably have obtained the polyp, but might well have missed the carcinoma until six months later.

There have been any number of other patients where this technique has helped to establish the diagnosis. One in particular was that of a woman who was known to have tuberculosis of the kidney. She entered with a pleural effusion which was thought also to be tuberculous. However, she was bronchoscoped and found to have profuse bronchial secretions. Stained smears of the secretion showed carcinoma. One other patient was shown to have carcinomatous cells in her bronchial secretions. She elected to return to her home in Oklahoma for treatment. When seen there, a diagnosis of actinomycosis was made, and she was dismissed. Eight months later a thoracotomy was finally performed which disclosed an inoperable carcinoma.

Dr. Kerr: I do not intend to discuss the relative merits of this procedure. I shall present a review of the smears we have examined since we started this study in July, 1946. We have examined smears from more than 900 patients. Up to last October we had examined smears from approximately 360 cases. These we considered a "trial run"—the statistics I shall present are from 500 patients examined since last October. We made these examinations with one important premise, that no patient was to be treated on the basis of the smear alone, but only after a definite biopsy diagnosis. This policy is still in effect.

The fluids examined fell into the following groups:

Vaginal secretions	272
Sputum	52
Bronchial secretions	31
Urine	58
Body fluids	48
Gastric contents	18
Breast secretions	12
Miscellaneous	9
Total Cases	500

This is not as large a series as I should like to have to report. Perhaps one reason is that they are all from hospital patients. I do not accept slides from the outside because I want to be able to see the patient and to make sure that the patients or the surgeons do not have difficulties because of mistakes I may make. We included in the above both sputums and smears from bronchial secretions, but the results were not consistent in individual patients so that I have made no attempt to compare them. The body fluids were all checked by centrifugation and examination of the sediment by paraffin section. In the miscellaneous group there was one specimen which interested me very much. The nose and throat men called me to see a patient who had a peculiar nose lesion before they biopsied it. I collected some of his nasal secretions on a slide and found the most beautiful malignant cells. The lesion was proved to be carcinoma by biopsy.

On most of the patients we had but a single smear. I have analyzed the correlation of the smear diagnosis with autopsy or surgical findings in 204 patients in order to determine the value of the procedure in my hands. Of the vaginal smears 117 were followed by biopsy. Eighty-three were benign; 31 malignant. In the remaining three the tissue diagnosis was indefinite but was established subsequently by further biopsies. In that group we had three false negative smears. We had four smears we called positive but so far we have been able to prove but one of these by biopsy.

Dr. Papanicolaou[15] divides his smears into five categories: Grade I, normal; Grade II, atypical cells not definitely malignant, smear should be repeated in three months; Grade III, questionable, smear

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should be repeated as soon as possible; Grade IV, in all probability malignant; Grade V, unquestionably malignant. I should say that two of the smears that I called unconfirmed positives above would fit into his Grade III. Most of the patients on whom we have examined smears were in the hospital for a diagnostic workup so that we saw as a rule but one smear from each patient. Perhaps if we had had other smears from some of the doubtful cases we might have been able to come to a definite conclusion.

Of the 52 sputums examined, 11 were thought to be malignant and 12 benign. We had two false negatives, one false positive and three questionable smears. One of the false positives was from a patient with hyperplastic bronchiectasis in which there were many papillary processes. Of the questionable smears, two were from cases of organizing pneumonia. Inflammatory lesions of the lung are often hard to interpret by smear. In *Cancer* there is a picture of a cell in mitosis in an article by McKay, Ware, Atwood, and Harken[11] which was found on a smear from a case of organizing pneumonia. Thus there may be atypical cells from inflammatory lesions of the lung which are difficult to interpret and to differentiate from malignant cells. The final conclusion in the summary of the article is that operation or treatment should not be planned on the basis of smear alone, but rather on biopsy, if obtainable, and on the findings at exploratory thoracotomy. This conclusion is one with which I entirely agree. This method is best used as an adjunct in arriving at a definite diagnosis.

The statistics from the body fluids examined by smear check quite well with other methods of examination. One patient on whom we made no diagnosis on smear or section of the sediment of the fluid was found at autopsy to have an ovarian carcinoma. Another case which was confusing on smear was found at autopsy to have a multicentric carcinoma of the liver.

We have not had many urines to examine, and as others before us, we find these among the most difficult to interpret. We have had three false negatives, two of which were Grade I papillary carcinomas. Dr. Papanicolaou[14] and Dr. Stewart at Memorial Hospital do not consider these malignant. There have been no false positives. There are two questionable cases, but the x-ray changes are also minimal. A surgeon has been anxious to explore one of them, but he is not willing to do so on the basis of the x-rays, and I do not feel that he should on the basis of what I have seen on smears to date. Perhaps when we have seen more such smears we shall be able to make a more satisfactory diagnosis.

There have been few stomach aspirations to date. We have had one false negative—the patient had a lymphosarcoma of the stomach, and the mucosa was not ulcerated. We have had no false positives as yet, but I should point out that according to the literature, these are not infrequent.

Those patients on whom we have examined secretions from the nipple presented an interesting problem. I do not know what the normal secretion should look like nor could I find any reference to smears of breast secretions in the literature. We found large foamy cells similar to those seen in ducts on section; these we considered to have no pathological significance. On four there were groups of cells similar to those seen in papillomas. On the basis of this finding all four were explored and in all four ductal papillomas were found. I might say that in none of these was there a palpable tumor.

I received some statistics from Dr. Papanicolaou's laboratory the other day which might be of interest. At the Strang Clinic they found three cases of clinically undiagnosable uterine carcinoma per 1,000 women examined in 1947 and so far in 1948, four per 1,000. They consider this percentage worth the extra time and effort involved in the examination of the smears. In our hospital we have found three such cases so far this year which were apparently discovered early enough so that we should be able to effect a cure. Thus, I, too, am of the opinion that this procedure is worth the effort in certain cases, at least.

Dr. Hellwig: You have heard of the excellent results obtained by this method in the hands of a gynecologist and surgeon and of a clinical pathologist. We read in the literature that examination of these smears can be made with an accuracy of 97 per cent. Why then does every one who diagnoses a smear as positive want a biopsy? Why do they not rely on the smear and have the courage to accept its evidence to recommend surgery or radiation? As a pathologist it seems to me that one has but three alternatives in the examination of a specimen: to say, "This is cancer," "This is not cancer," and, "I do not know what this is." I do not believe that our methods or present knowledge allow us to say, "That may be cancer," or "That is potentially cancer." To me such slides belong in the "I-do-not-know" group.

I have worked with Dr. Papanicolaou's technique and I admire his initiative. The proponents of his technique frequently insist that one can make the diagnosis of cancer from a single cell. With this I disagree. I think that if you examine most of the articles on this subject, you will find that the cells pictured are groups of cells, in other words, fragments of tissue. It has long been recognized that one can make the diagnosis of cancer from clumps

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of cells in the sediment of fluids from serous cavities. To me this technique is but a logical outgrowth of such observations. I doubt very much that one can look at any one cell and say with absolute certainty, "That is a malignant cell," or "That is a histiocyte." It may be possible with the new techniques such as phase microscopy or electron microscopy to diagnose with certainty individual cells, but with our present technique of light microscopy, this would seem to me to be an impossibility.

There was a time when MacCarty[9] said that one could recognize single malignant cells in frozen sections of fresh unfixed tissue if one examined these cells, stained with methylene blue, under oil immersion. Then Guttman and Halpern[7] repeated the work and actually made measurements of the nuclear-nucleolar ratio in normal and hyperplastic tissue and in benign and malignant tumors. They found that the difference between the nuclear-nucleolar ratios of these various tissues were not significant, and that if any were more unusual it was the hyperplastic tissue and not the malignant.

I will admit that Papanicolaou's method does have a place in the laboratory. In cases where one cannot reach the suspected tumor by endoscopes, by curette or visually, it certainly has its value. However, if you can get bits of tissue to examine, why bother with secretions which, after all, contain for the most part dead and altered cells. Many times in smears one finds degenerated cells which have undergone changes which make them similar in appearance to malignant cells. I know of a number of instances in which the diagnosis of cancer was made on the basis of such cells and could not be substantiated. Another thing which troubles me is that cells from a carcinoma-in-situ and cells from a full-blown carcinoma look alike in Papanicolaou preparations.

The problem of carcinoma-in-situ is most interesting. Exactly what it represents no one can say. It resembles Bowen's disease of the skin. I recall a study of three patients by Schiller on whom such a diagnosis was made. He followed one of these patients for nine years and could detect no significant change in the lesion. Is this a true carcinoma? Certainly not what we ordinarily consider as carcinoma of the cervix.

I have not had the experience of Dr. Grosjean, nor of Dr. Kerr. To date I have examined smears from but 200 patients. Although one can readily recognize groups of tumor cells as cancer cells, when I see single cells in a stained smear without relation to other elements, I, for one, will never say "cancer cell," but prefer to say that there are atypical cells in the smear.

The cells one sees from polyps are many times misleading. I remember a special study by Robert Meyer [13]. In sections of endometrial polyps he could often find atypical glands, but he could find no evidence that these ever actually became malignant. In older women one also sees misleading cells in cases of vaginitis and after radiation therapy. Thus, it seems to me that one can say that one sees atypical cells, but that is all one can say.

Dr. Floersch: I should like to discuss this problem from the standpoint of an individual in the practice of gynecology. Like the others, early in 1946 I became interested in the study of "atypical" cells. I have personally studied hundreds of slides, not only in my office, but at the University of Kansas Medical Center and at St. Margaret's Hospital. Originally we planned our work as a study of the physiological change of the menstrual cycle rather than to search for cancer. However, as time went on, we made it a routine examination on all patients who were seen. We occasionally saw sufficient numbers of atypical cells in a smear to be prompted to follow a patient further. I am reminded of one patient about whom we were particularly concerned. She was an older woman who had a small amount of postmenopausal bleeding. A curettage was negative, but on the smears there were cells which did not seem to be physiological. We followed her with repeated smears for several months. Finally, a repeat curettage was positive and on hysterectomy a small carcinoma was found in one uterine cornu.

The question of whether a physician can maintain a satisfactory smear diagnosis laboratory in his office is rather important. I feel that it is not practical and that it is beyond the scope of the average busy physician in private practice. It requires a lot of time and work and one must have an extremely competent technician if one expects to get the work done. We have been fortunate in that we have a technician who became interested in cytological studies of vaginal smears and became quite proficient in screening the slides and leaving the questionable ones for further study.

The Papanicolaou technique is not quite as simple as it sounds. It may take only 20 minutes or so to make and stain the smears but in addition to the services of a technician a sizable amount of equipment is necessary. Possibly a quicker and much more simple technique as described recently by Norman Miller and his group[19] at Michigan with the use of a silver carbonate stain may reduce, to some extent, the equipment necessary, but the time required over the microscope will not be affected.

The time required in examining these smears is certainly no small item. This feature in itself makes me feel that this is not an office procedure for large numbers of slides but for the trained pathologists in the laboratory. After hearing Dr. Hellwig's discus-



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sion one is inclined to question whether he is seeing cancer cells or not. However, the "atypical" character of some of the cells would certainly force me to investigate further when they are found in the smear.

Just one more point—it is of great importance that the one who examines the smear knows how and where the material was obtained. The use of a wooden applicator is helpful in obtaining the material directly from the suspicious lesion and often eases the burden of finding an isolated abnormal cell in large groups of normal ones.

Student: Is that procedure called a surface biopsy?

Dr. Floersch: Yes, that might be called a surface biopsy.

Dr. Grosjean: I should like to say a few words in reply to Dr. Hellwig. He and I have discussed this problem before. I think the pathologist should realize the problem which the clinician must face. He is interested in the cure of his patient, not just in making an absolute diagnosis of cancer. The pathologist often is interested only in seeing a microscopic preparation on which he can be unequivocal. This point was emphasized at the Boston meeting. It seems to me that this method will lose much of its value if one feels that one must biopsy and rebiopsy, although I want it thoroughly understood that the diagnosis should be confirmed if at all possible. I am of the definite opinion that these smears have significance and that one can call a cancer cell a "cancer cell." And the accurate diagnosis of tumor cells depends on the services of a well trained cytologist and pathologist. I am of the opinion that cytology is the field where much progress has been made in the diagnosis of early cancer. It is not designed to replace biopsy by any means, as some seem to feel, but to spot those early asymptomatic cases on whom there would be no reason otherwise to biopsy if it were not for positive smears.

Dr. Hellwig: When anyone says that with more and more experience, one can make more accurate cytologic diagnoses so that one will be able to recognize tumor even without biopsy and advise the surgeon properly, I am not sure that he is entirely correct.

One of the most active proponents of the Papanicolaou technique recently advised scraping the suspicious lesions. This method of examining carcinoma was described in 1920 by Babes. Of 20 proven cases he had but two negative results. It was not accepted as a diagnostic method. Schiller[17] tried the procedure; he used a special curette with which to scrape the lesions. His reports likewise were not accepted because he could not prove the invasiveness of the lesions, nor could he differentiate carcinoma from carcinoma-in-situ any more than one can with the Papanicolaou technique. This question of carcinoma-in-situ is vexatious. Its significance is not yet understood.

Dr. Grosjean: It is my impression that of the cytologic methods discussed, the smear technique is much the easiest and in experienced hands, almost as accurate as, for instance, biopsy. There is another point about biopsy which I would like to emphasize. Foot has shown that the Schiller test does not always accurately locate the proper area to be biopsied and unless all four quadrants are examined a fair percentage of error will result. He showed that in 27 early cervical lesions one would have been missed even with biopsy from all four quadrants.

Dr. Kerr: One fact about these smears which we have not emphasized sufficiently so far, it seems to me, is that one cannot become competent in their diagnosis in one or two months. It takes a year or more to adequately train a technician to screen these slides and at least three months to train a competent pathologist to interpret them.

Dr. Wahl: By this method one cannot determine the question of the invasiveness of the cells we see in these smears. I must admit that I make my diagnoses of cancer from the arrangement of the cells, their invasiveness and their polarity. Such things cannot be observed in a smear.

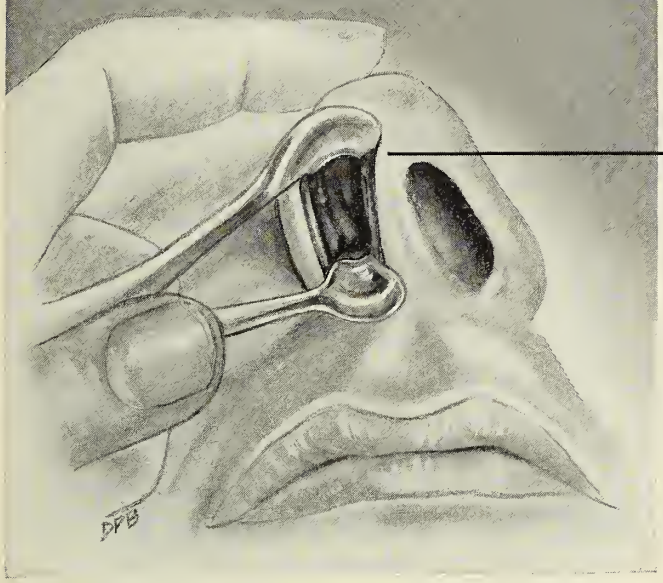
Dr. Grosjean: We have talked about the good and bad aspects of the cytologic diagnosis of cancer, and it may require much more observation and discussion before we can agree on its actual value. My chief interest in the method, as with other clinicians, is that it offers some hope of diagnosing cancer in its earliest stages. There is certainly plenty of bona fide evidence that early lesions are frequently so detected.

REFERENCES

1. American Cancer Society: Exfoliative Cytology. Cancer News, June, 1948.
2. Ayre, J. E.: Vaginal and Cervical Cytology in Uterine Cancer Diagnosis. Am. J. Obst. & Gynec., 51:743-750, 1946.
3. Ayre, J. E.: Preclinical Cancer of Cervix. J.A.M.A., 138:11-13, 1948.
4. Chute, R., and Williams, D.: Experiences with Stained Smears of Cells Exfoliated in the Urine in the Diagnosis of Cancer in the Genito-Urinary Tract: A Preliminary Report. J. Urol., 59:604-618, 1948.
5. Gates, O. and Warren, S.: A Handbook for the Diagnosis of Cancer of the Uterus by the Use of Vaginal Smears. Harvard University Press, 1947.
6. Grosjean, W. A.: Cancer Diagnosis by Smears. J. Kansas M. Soc. 47:441-443, 1947.
7. Guttman, P. H., and Halpern, S.: Nuclear-nucleolar Volume Ratio in Cancer. Am. J. Cancer, 25:802-806, 1935.
8. Herbut, P. A., and Lubin, E. N.: Cancer Cells in Prostatic Secretions. J. Urol., 47:542-551, 1947.
9. MacCarty, W. C.: The Malignant Cell. J. Cancer Research, 13:167-172, 1929.
10. Mathews, W. H.: Examination of Sputum for Tumor Cells. Can. M.A.J., 58:236-240, 1948.
11. McKay, D. G., Ware, P. F., Atwood, D.A., and Harken, D. E.: The Diagnosis of Bronchogenic Carcinoma by Smears of Bronchoscopic Aspirations. Cancer 1:208-222, 1948.
12. Meigs, J. V.: The Vaginal Smear. J.A.M.A. 133:75-78, 1947.
13. Meyer, R.: Handbuch der speziellen pathologischen Anatomie und Histologie. (Ed. by Henke, F. and Lubarcsh, O.) Berlin. J. Springer, 1930. Vol. 7, p. 518.

(Continued on Page 540)

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MEMBERS

A scientific exhibit at the interim session of the A.M.A. in St. Louis early this month was presented by Doctors Irene A. Koeneke, V. E. Chesky, G. A. Westfall, L. E. Peckenschneider and Thomas L. Foster of the Hertzler Clinic, Halstead.

* * *

Dr. James T. Makinson, La Crosse, is also maintaining an office at McCracken and divides his time between the two cities.

* * *

Dr. T. L. Foster, Halstead, presented a paper, "Liver Function in Neuropsychiatric Patients as Determined by the Hippuric Acid Test," at a meeting of the Missouri Society for Neurology and Psychiatry in Kansas City last month.

* * *

Three physicians from the University of Kansas Medical Center, Dr. Graham Asher, Dr. Lawrence Steffen and Dr. Franklin D. Murphy, prepared an exhibit on "Latent or Subclinical Tetany" for the A.M.A. meeting in St. Louis this month.

* * *

Dr. Karl A. Ehrlich, El Dorado, has opened an office in Potwin and practices there on Mondays, Wednesdays and Fridays.

* * *

Dr. Fred L. Ford, formerly chief surgeon at the Santa Fe Hospital, Topeka, has opened an office in Topeka for the practice of medicine and surgery.

* * *

Dr. H. H. Loewen, Wichita, is taking a postgraduate course in surgery at Cook County Hospital, Chicago.

* * *

Dr. James A. Wheeler, Newton, prepared an exhibit on "Encephalomyelitis Virus" at the recent A.M.A. interim session in St. Louis.

* * *

Dr. Donald H. Macrae, formerly with the Menninger Foundation, has opened an office in Topeka for the practice of internal medicine.

* * *

Dr. W. B. Scott, who has been practicing in Topeka, announced recently that he is moving to Michigan and will practice there.

* * *

Dr. Thor Jager, Wichita, pathologist at Wesley Hospital for the past 25 years, has resigned that position to devote his attention to private practice.

* * *

Dr. LaVerne B. Spake, Kansas City, became a fellow of the International College of Surgeons at a meeting held in St. Louis this month. Dr. F. S. Casey, Kansas City, became an affiliate of the College and Dr. Philip C. Nohe, Kansas City, became a matriculate at the same meeting.

* * *

Dr. R. E. White, Garnett, announces that Dr. Robert L. Stevens and Dr. Mildred J. Stevens, formerly of Ulysses, are now associated with him in practice in the Garnett Medical Center. Dr. R. L. Stevens will specialize in surgery and Dr. M. J. Stevens will devote her time to obstetrics and pediatrics. Both are graduates of the University of Kansas School of Medicine.

* * *

Dr. E. M. Ireland, Pratt, has been named health officer of Pratt County on a part-time basis.

The Mowery Clinic, Salina, announces that Dr. Henry Dreher, Jr., is now practicing there after having finished a residency at the University of Kansas Medical Center. His father, Dr. Henry S. Dreher, Sr., is also associated with the clinic.

* * *

Dr. Walter J. Pettijohn, Russell, became an affiliate of the International College of Surgeons at a meeting held in St. Louis last month.

COUNTY SOCIETIES

The Shawnee County Medical Society held a dinner meeting at the Jayhawk Hotel, Topeka, on November 1 to honor one of its members, Dr. M. G. Sloo, who recently retired from practice. Mr. T. M. Lillard, Topeka attorney, gave the address of the evening.

* * *

The Sedgwick County Society met November 2 at the Broadview Hotel, Wichita. Dr. Raymond W. McNealy, Chicago, presented the scientific program on the subject of "Preparation of Patients for Large Bowel Surgery."

* * *

A meeting of the Rice County Society was held October 27 at Lyons. A guest speaker, Mr. Edward Wahl, discussed "Legal Aspects of Medicine."

* * *

The Marion County Medical Society was host to the Harvey and McPherson County Societies at a meeting held at Marion November 17. Dr. Wayne C. Bartlett, Wichita, read a paper on "Regional Ilieitis" and Dr. James B. Fisher, also of Wichita, spoke on "Gastroscopy" and demonstrated the gastroscope. Dr. Harold G. Nelson, who formerly lived in Marion and is now epidemiologist for the Kansas State Board of Health, told the group of the work of that department and studies that have been proposed.

* * *

Doctors of Winfield entertained the Tri-County Medical Association at its meeting on November 18. A golf tourney in the afternoon was followed by a dinner and scientific program. Dr. Victor Buhler and Dr. F. A. Carmichael, both of Kansas City, were guest speakers.

* * *

County societies of the first district held a joint meeting in Seneca November 9. Members of the Auxiliary were guests at a dinner, after which separate meetings were held. Dr. Raymond Gelvin, Concordia, entertained the medical group with motion pictures he took on a recent trip to Mexico, and Mr. Oliver E. Ebel addressed the meeting.

Mental Health Broadcasts

A series of broadcasts produced by the National Mental Health Foundation is now being presented in Kansas under sponsorship of the Kansas State Board of Health. The programs feature dramatizations by Helen Hayes, Eleanor Roosevelt, Rev. Harry Emerson Fosdick, Ralph Bellamy and other well known persons.

The following Kansas stations are carrying the broadcasts: KXXX, Colby, Mondays, 3:30 p.m.; KVGB, Great Bend, Tuesdays and Thursdays, 1:45 p.m.; KCKN, Kansas City, Sundays, 9:00 p.m.; KOAM, Pittsburg, Wednesdays, 8:00 p.m.; KSAL, Salina, Sundays, 1:45 p.m.; WREN, Topeka, Mondays, 9:00 p.m.; KFBI, Wichita, Tuesdays, 7:15 p.m.



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Doctor Stresses Rehabilitation

Although millions of dollars are spent on the prevention of accidents and disease and many more millions on their treatment, the United States has until now neglected the third phase of medicine, the rehabilitation of the sick or injured person and his restoration to a useful and happy life, Dr. Howard A. Rusk of New York City told the Association of Life Insurance Medical Directors of America at a meeting in New York last month.

Dr. Rusk, who is chairman of the Department of Rehabilitation and Physical Medicine at Bellevue Hospital in New York City, described a pilot program now being developed at his hospital. The Bellevue organization now has 80 hospital beds and will soon be expanded to 600, offering a complete program of physical medicine and rehabilitation including retraining, psychological adjustment, vocational evaluation and guidance for physically handicapped persons.

"Although the focus of attention has been centered on disabled veterans," Dr. Rusk declared, "the extent of disability among our civilian population is much greater. There were 19,000 amputations during World War II, but over 120,000 major amputations during the same period among our civilian population. Approximately 1,500 men were blinded while in military service, but 60,000 civilians lost their sight during the same period . . . There are 23 million persons in the United States handicapped to some extent by disease, accidents, maladjustments or war."

Dr. Rusk cited the economic savings from proper rehabilitation of people suffering from long-standing chronic illness and expressed his approval of programs that teach a patient with physical disability "to live within the limits of his disability but to the hilt of his capabilities."

Congress on Rheumatic Diseases

The first International Congress on Rheumatic Diseases ever held in the United States will take place at the Waldorf Astoria in New York City May 30 to June 3, 1949, under the sponsorship of the International League against Rheumatism. Seven scientific sessions and five round table conferences on various clinical topics have been planned, and short clinics will be given at several New York hospitals. Complete information on the congress may be secured from Edwin P. Jordan, M.D., Chairman, Publicity Committee, 2020 East 93rd Street, Cleveland 6, Ohio.

DEATH NOTICES

CANADA ASBURY BEELER, M.D.

Dr. C. A. Beeler, 75, who had practiced at Cherryvale since 1929, died at his home there October 1. He was an honorary member of the Montgomery County Medical Society. Dr. Beeler was graduated from the Fort Worth School of Medicine in 1903, and practiced first in Burneyville and Marietta, Oklahoma.

* * *

JESSE V. FERREL, M.D.

Dr. Jesse V. Ferrel, 77, died at his home at Louisburg October 5. A graduate of the Physio-Medical College of Indiana in 1897, Dr. Farrel had practiced in Winchester, Kansas, and Parkville, Missouri, before opening his office in Louisburg in 1907. He later practiced in Kansas City but returned to Louisburg when he retired in 1939.

* * *

WILLIAM JOHN STEWART, M.D.

Dr. William J. Stewart, 79, president of the Marshall County Medical Society, died at Topeka October 21. A graduate of the Kansas Medical College, Topeka, in 1909, Dr. Stewart had practiced in Kansas since that year, first at Summerfield and at Frankfort since 1922. He had served the county as health officer and coroner and was also active in civic affairs.

* * *

JACOB FOSTER SHELLEY, M.D.

Dr. J. F. Shelley, 83, an honorary member of the Chase County Society, died at Emporia October 23. He received his medical education at Rush Medical College, graduating in 1891, and practiced in Colby for two years before opening an office in Elmdale, where he was practicing at the time of his death.

* * *

ROMEO CATLIN HARNER, M.D.

An honorary member of the Elk County Society, Dr. R. C. Harner, 80, died November 4 at his home in Howard. He was graduated from the University of Illinois College of Medicine in 1905 and had practiced in Howard since 1911. He was interested in civic affairs and was active in Boy Scout work, organizing the first troop in Elk County in 1913, two years after the Scouts were founded.

* * *

ROBERT LESLIE FERGUSON, M.D.

Dr. Robert L. Ferguson, 74, who had practiced in Arkansas City since 1921, died at his home there November 5. Specializing in eye, ear, nose and throat work, Dr. Ferguson was graduated from the Kansas City Medical College in 1903. He practiced first in Green Ridge, Missouri, and later at Marquette, Kansas. He was an active member of the Cowley County Society.

* * *

ERNEST WALTER TALLMAN, M.D.

Dr. E. W. Tallman, 72, a member of the Smith County Society who had been practicing in Gaylord for a number of years, died at Hays November 12. He was a graduate of the St. Louis University School of Medicine with the class of 1905 and had practiced in Smith County since that time.

* * *

FRANKLIN E. SCHENCK, M.D.

Dr. F. E. Schenck, 92, one of the oldest physicians in age and years of practice in this state, died at his home in Burlingame November 19. He was an honorary member of the Osage County Medical Society.

Dr. Schenck was graduated from the College of Physicians and Surgeons, Keokuk, Iowa, in 1882 and began practice in Kansas in 1901, serving Burlingame, Harveyville, Admire, Miller and Auburn. During the past 27 years his son, Dr. Fred Schenck, has been associated with him in practice.

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Starry-eyed over the advancements in medical science, Kansans have forgotten to look around them and see that in the past 40 years, while the population of the state has gone up 25 per cent, the number of Kansas doctors has decreased 30 per cent.

As we go out in two weeks to vote for legislators, we can well reflect on this challenge: that there is something facing the state, far more important than liquor, teachers' salaries or cracking highways. The next legislature is going to be asked to do something about life and death in Kansas—something about providing more medical care for the people of the state.

The request will come from a bright young man named Franklin D. Murphy, M.D., who, as dean of the University of Kansas medical school, is the man who must supply Kansas with whatever additional doctors it is going to get. Dr. Murphy has a plan. Right off the bat it is going to cost Kansas $4 million. A half hour talk with Dr. Murphy convinces you that the plan is cheap at that price . . .

So Dr. Murphy wants four million dollars. With that much to expand facilities, he says he can begin at once turning out 100 doctors a year. Why will it cost so much? Well, doctors don't learn their business by reading books and writing examinations. They learn by actually working with patients, by staffing a model hospital and treating a variety of cases. That means the school must build a bigger hospital, get more patients in more beds, before it can train more doctors. The legislature will be asked for the minimum amount needed to do this.

Even when this is done, the problem will be only half solved. For, Dr. Murphy explains, Kansas isn't getting the full benefit out of even the 80 doctors being trained each year. Half of them don't settle in Kansas at all. Those that do, stay shy of the rural communities that need them most. There are two compelling reasons why the young doctors don't flock to the country to set up their practices.

First, after a long, expensive education, they don't have the money to buy equipment, rent an office, and go into business for themselves. So they tie up with an established doctor in a city. Secondly, the young doctor is scared of the isolation of rural areas. He's afraid he'll get in a rut, get out of contact with new developments in medicine and be denied the intellectual stimulation that comes from association with fellow professionals.

Again, Dr. Murphy has a plan. He proposes that the small community which needs a doctor, co-operate to meet the young doctor's money needs. . . .

A threatening crisis in Kansas has been met by dramatic and courageous proposals. We owe it to ourselves to accept the challenge, to give priority to health.—*J. M., Emporia Weekly Gazette, October 28, 1948.*

* * *

Ethics Unimpaired

In Kansas City, Kansas, the members of the Wyandotte County Bar association have banded to run a series of weekly newspaper advertisements reciting case histories demonstrating the damage done through failure to obtain and heed a little professional legal advice.

In Salina the members of the Saline County Medical Association for years have sponsored advertisements containing sound suggestions on how to safeguard family health and describing situations when it is best or needless to call a doctor.

Such advertising campaigns are to be applauded. Not only because they give instruction and advice which are as much to the benefit of the public as they are to the professions involved, but also because they mark a beginning of the breakdown of the ridiculous pretense that advertising is professionally unethical.

It would, to be sure, undermine the dignity of the profession if dentists used billboards to announce that they would pull painlessly a choice of any three teeth for $2.98. If lawyers bought radio time to tell how easily they could get anyone a divorce with publicity prevented and alimony guaranteed. If doctors stated in full page announcements they could cure cancer in ten easy treatments, or money cheerfully refunded to the heirs.

But the public would be saved an infinite amount of physical suffering, pocketbook distress, and mental anxiety if those who hide the mysteries of their several sciences behind Latin phrases would collectively and with dignity, advertise where, when, why and how to obtain dependable professional service.—*Hutchinson News-Herald.*

* * *

Committee Approves School

Further evidence that the current blast at state mental institutions, as they affect the State Training school in Winfield, is uncalled for, came to light Wednesday.

On September 28 the committee on mental health, Kansas Medical society, met at the State Training school for a tour of the institution.

Following the visit Dr. William F. Roth, Jr., chairman, department of psychiatry and neurology, University of Kansas school of medicine, wrote to Supt. L. C. Tune, in part:

"My impression is that you are doing a very good job with what you have to do with. Any defects in the institution can be traced, I am sure, directly to the limited amount of funds available."

Dr. Roth suggested more specially trained personnel, especially occupational and recreational therapists and teachers, in addition to a full-time psychologist, and a full-time assistant to Dr. C. C. Hawke, school physician. Such a program would require additional funds, he realized.

Dr. Edward D. Greenwood, chairman of the mental health committee, wrote:

"We were all much impressed throughout the tour at the splendid attitude your attendants have toward the children. It was noted that many had a maternal interest in the patients and that all inmates appeared to be well and kindly treated. Throughout our stay we saw none who had the appearance of being afraid.

"We know, of course, it is daily apparent to you that the institution is overcrowded and that an urgent and long standing need exists for more buildings and additional funds. Along this line, it appeared to the committee that more patients could be rehabilitated if a larger number of trained employes might be obtained.

"We realize that your accomplishments have not been easy and that the constant necessity for providing maximum services with minimum funds, can, over a period of years become very discouraging. We were delighted to learn that so much has been accomplished with so little."—*Winfield Courier, October 20, 1948.*

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Thanks for the kind words, son. But no kidding, ladies and gentlemen, those Bonds are sensational. They're appropriate for *anyone* on your list. On Christmas morning, nothing looks better in a stocking—except maybe Dorothy Lamour.

CROSBY:

Old Ski Nose is correct. And don't forget how easy it is to buy bonds—you can get 'em at *any* bank or post office.

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Progress in Public Health

It is easier—and sometimes less vital—to get people to grasp a great truth than it is to stop them from scratching a mosquito bite. Few agents of social change have had the opportunity to learn this great truth more thoroughly than Dr. Samuel J. Crumbine, the pioneer public health officer from Kansas who invented the fly-swatter, outlawed the common drinking cup, and coined such slogans as "Don't Spit on the Sidewalk."

Recently, Dr. Crumbine celebrated his 86th birthday by publishing his memoirs, "Frontier Doctor." In writing them, he has had the chance, rare even for an octogenarian man of achievement, to see how human beings have moved toward their own preservation in a single lifetime.

While medical researchers were discovering how microbes cause disease, Doctor Crumbine and his fellow-crusaders were altering the supposedly intractable nervous systems of their countrymen so that now a surprisingly large number of Americans cover their coughs, keep their germs to themselves, swat flies, and even close screen doors behind them.

It is reassuring to find that the men who brought these changes about were not sinister super-salesmen. Doctor Crumbine, for instance, is at heart a practical, community-minded general practitioner with an unacademic interest in everything from family trees to hypnotism.

There was nothing theoretical about his opposition to the common drinking cup, and he did not ban it by verbal or legal violence. He was rushing to the scene of a threatened outbreak of smallpox in 1909 when he happened to notice a thirsty little girl on the train drinking out of the cup at the water-cooler after a tuberculous passenger on his way to New Mexico. To Doctor Crumbine, the cup loomed as a dispensable link in the endless chain of infection. When he got back home, he had a talk with the railroad authorities, after which conductors took to locking up the cups while passing through Kansas.

For a while, it looked as if travelers were going to have to have to carry their own drinking cups. Then, as if in answer to the need, a young man called on Doctor Crumbine to show him a crudely made cornucopia of paper that could be used for only one drink of water. In a few years, single-service paper cups became the rule on railroad trains all over the civilized world.

At this distance, Doctor Crumbine's train problem seems small because it is solved, but the techniques of solving it are worth notice. All of them are native to the American genius: a bent for cooperation rather than coercion, a practical interest in human life, and an economic climate that encourages new ways of furthering it.—*Kansas City Kansan, October 17, 1948.*

* * *

Troubles Pile Up

Kansas has a shortage of practicing physicians in its small towns. Many rural areas are without a doctor and there is no immediate prospect of a change in that condition. That is true principally because Kansas is not producing enough doctors to meet the demand.

The dean of the state university's medical school—the only such institution in Kansas—has a plan which would alleviate the situation over the long pull. Its principal condition is an expenditure of 4 million dollars for more medical school facilities, so that larger classes of medical students can be accommodated.

That seems both desirable and necessary, if Kansas is to do something about its shortage of doctors. Other states have their problems and aren't particularly concerned about what goes on in Kansas alone, if the problem is to be solved in a satisfactory manner.

There will be many demands made upon the next legislature for more appropriations. State institutions, highways and the medical shortage are among the headliners. Kansas hasn't found a suitable solution for its financial problems in the educational field, either.

The next session of the legislature thus looks like it will be a spending session, members willing. What's happening is not unexpected. Kansas has rocked along for a good many years, content with cutting the cloth to a close fit. It has postponed action on many things, completely neglected others. Time is catching up with Kansas, and overtaking it. It must prepare to spend at a fairly heavy clip to make up for those long years of delay and neglect.

A legislative retort that the state can't stand the burden of the necessary expenditures will be no answer at all. Not when the legislature can dig up enough money for a fancy new state office building in Topeka. If the state is that plush, it can afford to do some other things, too, which are far more pressing and important.—*Parsons Sun, September 28, 1948.*

* * *

To Socialized Medicine

In a strongly worded resolution, unanimously passed at its recent convention in Akron, the Association of American Physicians and Surgeons urged medical schools to refuse federal aid, on the grounds that it would open the back door to socialized medicine.

The Association fully recognizes the need of more money for medical schools in these days of high costs. But it believes the funds should be raised by campaigns among private sources.

There is certainly plenty of justification for the fear that federal financial support of medical schools could be the prelude to socialized medicine. Once the government gets a financial stake in any enterprise, it tends to dominate it more and more. The bureaucrats in charge are always exceedingly zealous in advancing their own prerogatives and powers. And he who holds the purse-strings is usually able to call the tune.

The Association of Physicians and Surgeons is combating socialized medicine for two specific reasons. First, it believes it would result in inferior medical care. Secondly, it would have an exceedingly damaging effect on the national economy. New Zealand, for instance, is now spending 40 per cent of all government revenue on its socialized medicine scheme—and it still has deficits, and it hasn't been able to deliver all the promised benefits. The resolution pointing to the dangers inherent in federal financial domination of medical schools is exceedingly timely.—*Winfield Courier, November 3, 1948.*

Gastroenterological Association Award

The National Gastroenterological Association announces its annual cash prize award contest for 1949, offering $100 and a certificate of merit for the best unpublished contribution on gastroenterology or allied subjects. The winning contribution will be selected by a board of impartial judges.

Contestants residing in the United States must be members of the American Medical Association. Entries should not exceed 5,000 words, prepared in manuscript form, and must be received not later than April 1, 1949. Additional information on the contest may be secured from the association, 1819 Broadway, New York 23, New York.



The First X-Ray...

Medicine and Dentistry thank Wilhelm C. Röntgen (1845-1923), director of the Physical Institute of the University of Würzburg, for discovery of the X-ray.

A barium platinocyanide screen, glowing brightly in the dark in the course of one of his laboratory experiments with a Hittorf-Crookes tube, put the Bavarian physicist on the trail of the invisible ray.

Further investigation disclosed its great penetrative and photographic powers. His first photograph recorded the bones of Frau Röntgen's hand. A "preliminary communication" on his discovery was released on December 28, 1895, to the president of the Physical Medical Society of Würzburg—and the X-ray, so named by Röntgen for want of anything more definitive, was promptly welcomed in medical and dental circles.

Doctors Today still rely not only upon the X-ray, but also upon another professional safeguard which came into being less than four years after the X-ray itself: the malpractice insurance policy with which The Medical Protective Company assures doctors *complete* protection, *preventive* counsel and *confidential* service.

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State Society Activities

Although many activities and services of a state medical society are common to all such groups, it is amazing to note from information recently compiled by the Council on Medical Service of the American Medical Association that each constituent society expresses its individuality in countless ways in the conduct of its operations.

These variations may be due to density of physician population within a state, problems peculiar to that area, and ratio of urban and rural practice. However, it seems that a survey of the differences existing may be of interest to show the position of the Kansas Medical Society in relation to other state organizations. In addition, Kansas might profit by following the example of other societies in inaugurating new projects and strengthening programs now under way.

Information released by the Council on Medical Service was compiled from 45 replies received as the result of a questionnaire sent to each of the 53 constituent associations of the A.M.A. The group of 53 is made up of one organization for each of the states, the District of Columbia and the four territorial groups.

A study of the organization of the different societies reveals that 14 were formed before the advent of the A.M.A., with New Jersey taking the lead in 1766. By the end of that century physicians had organized in five other states, and during the next 50 years 14 more state groups were formed. In the period between 1851 and 1875, eleven state societies became active, and it was during that interval, in 1859, that the Kansas Medical Society received its charter from the Territorial Legislature. Twelve additional societies were organized prior to 1925. Thirty-four of the 45 associations reporting are incorporated, which is considered a definite advantage if the society extends its activities beyond the academic field, owns property, has a sizable budget and operating personnel.

The House of Delegates, as a legislative body, is common to most state associations, with a smaller group (the Council in Kansas), to carry out legislative decisions. Twelve state societies report governing boards of 10 or fewer members, 14 have boards numbering from 11 to 15 members, seven have boards ranging from 16 to 20 members, and only four report a councilor group of from 21 to 25 members.

One of the most interesting features of the report was a table presenting organization information on all the constituent groups. Out of eight states selected from this immediate area, three have a larger membership and four a smaller membership than Kansas. Kansas is second from the bottom with reference to the number of employees working in the executive office. These figures range from three (with Kansas employing four) to 19. Most interesting in this series of figures is the tabulation with reference to annual dues. Three states from this group have annual dues larger than the figure set for Kansas, while in two states it is smaller. The greatest amount paid in the midwest is $50, and in the nation it is $60. Seven states showed amounts of more than $35, four ranged from $26 to $35, 16 were in the $16 to $25 group, and 13 were from $11 to $15. Five state associations reported amounts of $10 or less.

Education in the field of medicine, one of the primary objectives of any medical organization, is handled largely through the publication of medical journals. Thirty-six states publish individual scientific journals and 11 others participate with one or more associations in a medical publication. All of the journals are devoted primarily to scientific medicine, and most provide space for publication of official proceedings, editorial comment, news notes and material on social medicine.

Thirty-four states provide postgraduate programs for their members, and in this field the Kansas Medical Society has always been active. In addition to the scientific programs presented each year at the annual meeting, the Kansas Medical Society, through its committees, has presented a number of short, intensive courses in specific fields, such as the cardiac clinic at Emporia last month under the sponsorship of the Committee on the Study of Heart Disease and the Mid-West Cancer Conference to be held in Wichita next month through arrangements by the Committee on the Control of Cancer.

Several state associations have sponsored a secretaries' conference for many years to indoctrinate the officers of component county medical societies, and recently a number of other states have inaugurated the practice. The first such conference in Kansas was held in September of this year, and was an unqualified success. At the suggestion of the Council, a similar conference will be an annual event in the future.

In its report the Council on Medical Service listed also a number of medical association activities that have not been undertaken in Kansas to date, with comments on the popularity of such projects elsewhere. Prominent in this list was the publication of a news letter, now a regular feature for 14 state groups and an occasional feature for two, Missouri and Nebraska. It is generally agreed that a news letter serves a useful purpose in presenting timely information in a less formal manner than is usually found in medical journals.

The matter of public relations programs received due consideration and endorsement from the Council on Medical Service. Twenty-nine states now have programs in operation and three are preparing to begin programs soon. Some states are directing much of their activity in this field to programs of professional relations in order to lay the groundwork for future activity among lay persons. Funds allocated by different states for public relations work range from $500 to $190,000. The Kansas Medical Society has not set up a public relations program in its budget as that matter has always been handled on an individual basis in this state.

Thirty-five organizations report that their state surveys under the Hospital Construction Act have been completed, and Kansas is one of that number. Although the survey here was made by the Kansas State Board of Health, the Kansas Medical Society cooperated in the project through its Committee on Hospital Survey, and the chairman of that committee served also as chairman of the Advisory Committee to the Board of Health.

Opinion as to whether the state society should operate a group malpractice insurance program is rather evenly divided, with 25 states replying in the affirmative and 20 leaving this to commercial insurance carriers. Also asked was a question on group accident and health insurance. Kansas is one of 15 states in which a group accident and health benefit plan is available to the membership. Along with other information included in this survey is the fact that 23 states have endorsed the N.P.C. and 10 the A.A.P.S.

The study also included activities of county medical societies but since only 159 replied these figures are not indicative of the nation as a whole. However, of these, 67 stated that lay persons were employed in one capacity or another. It is surprising to note that those 67 represent 29 states. Dues for county societies, assessed in addition

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VLADO A. GETTING, M.D., Commissioner, Massachusetts State Department of Health, Boston.

R. M. HEILMAN, M.D., Director, Division of Hospital Facilities, Kansas State Board of Health.

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R. E. STOWELL, M.D., Professor of Pathology and Oncology, University of Kansas School of Medicine.

E. V. THIEHOFF, M.D., M.P.H., Professor of Public Health and Preventive Medicine, Chairman of Department, University of Kansas School of Medicine.

HARRY F. VAUGHAN, M.D., Professor of Public Health, and Dean, School of Public Health, University of Michigan, Ann Arbor.

The program is planned to cover those subject fields which present the problems most frequently confronted by public health workers today. One important subject field has been selected for each day's discussion, with didactic lectures in the forenoon and separate group discussions for doctors and nurses in the afternoon.

RADIOLOGY
February 7, 8, & 9, 1949
X-ray in Diagnosis and Therapy

Guest Instructors:

JAMES F. BRAILSFORD, M.D., Hunterian Professor, Royal College of Surgeons, London, England; founder and first president of the British Faculty of Radiologists.

JOHN CAFFEY, M.D., Associate Professor of Pediatrics, College of Physicians and Surgeons, Columbia University; Associate Pediatrician and Roentgenologist, Babies Hospital and Vanderbilt Clinic, New York City.

EDWIN C. ERNST, M.D., Director, X-ray Dept., Barnard Free Skin & Cancer Hospital; DePaul Hospital; consulting radiologist, Ellis Fischel State Cancer Hospital, Columbia, Mo.

L. K. CHONT, M.D., Radiologist, Snyder-Jones Clinic, Winfield, Kansas.

DAVID S. DANN, M.D., Radiologist, Menorrah Hospital, Kansas City, Mo.

L. A. GARY, M.D., Roentgenology Section, V. A. Hospital, Wadsworth, Kansas.

LELAND F. GLASER, M.D., Radiologist, Grace Hospital, Hutchinson, Kansas.

HOMER L. HIEBERT, M. D., Radiologist, Topeka, Kansas.

KENNETH C. HOLWEG, Radiologist, St. Joseph Hospital, Kansas City, Mo.

WILLIAM M. KITCHEN, M.D., Radiologist, St. Mary's Hospital, Kansas City, Mo.

IRA H. LOCKWOOD, M.D., Radiologist, Research Hospital, Kansas City, Mo.

V. J. LUCKARD, M.D., Roentgenology Section, V. A. Hospital, Wadsworth, Kansas.

NEWMAN C. NASH, M.D., Radiologist, Wesley Hospital, Wichita, Kansas

ANTHONY F. ROSITTO, M.D., Radiologist, Wichita Hospital, Wichita, Kansas.

LEWIS A. SCARPALLINO, M.D., Radiologist, St. Luke's Hospital, Kansas City, Mo

ARTHUR B. SMITH, M.D., Radiologist, Research Hospital, Kansas City, Mo.

J. T. SWANSON, M.D., Radiologist, Independence, Kansas.

JOHN W. WALKER, M.D., Radiologist, Kansas City, Mo.

CHARLES M. WHITE, M.D., Radiologist, Wichita Clinic, Wichita, Kansas

A. WOLKIN, M.D., Roentgenology Section, V. A. Hospital, Wadsworth, Kansas.

to state dues, vary almost as widely as the figures given above. Seven societies report 1948 dues of $5.00 or less, while three assess their membership more than $50. The great majority, however, have dues between $10 and $25. There is also a wide variation in the frequency of meetings. Eight county societies meet each week and eight meet no oftener than twice a year. One hundred fifteen meet once each month.

VETERANS ADMINISTRATION AGREEMENT

During recent months several problems have arisen with reference to the Kansas Medical Society's veterans' program. We wish to call these to your attention again because if the recommended procedure is followed by each cooperating physician the program will function more satisfactorily from the point of view of the medical profession as well as the Veterans Administration.

You will continue to receive examinations directly from the regional office involved. When the work is completed, the papers shall be sent to Dr. E. H. Gibbons, Medical Coordinator, Veterans Administration Medical Service Center, 10th and Van Buren Streets, Topeka. At that point the examinations will be reviewed before being sent to the regional office. In a large measure this is a service to the medical profession because the examinations will be satisfactory for rating purposes when they arrive at the regional office.

Requests for authorization for treatment shall also be directed to Dr. Gibbons. In cases of emergency, he may be reached by calling 4-1791. When making the request, it will save time if each physician will give all necessary information regarding the veteran's claim number, the nature of his illness and the proposed treatment. Unless the Veterans Administration issues authorization directly to the physician, the Veterans Administration will not assume responsibility for payment. It is therefore essential that authorization be obtained on every case.

Considerable misunderstanding has arisen with reference to prescriptions ordered for veterans by physicians who are not authorized to render treatment. Many instances are noted where the doctor has stated on the prescription blank that he is authorized to treat the veteran, but unless that authorization applies to that individual and to that particular illness, the drug bill will not be allowed.

When it is necessary to begin treatment before the authorization is received, and if prescriptions are required in the course of the treatment, the veteran should be asked to pay the druggist directly. If the Veterans Administration later authorizes treatment in this case, the veteran will receive a refund.

A release from Dr. Paul B. Magnuson, Chief Medical Director of the Veterans Administration, dated November 3, contains the following information which we especially call to your attention at this time:

"It has been brought to the attention of Central Office that in an increasing number of instances fee-basis physicians are apparently making the diagnosis of malaria and instituting treatment without first confirming the diagnosis by demonstration of the parasites in a blood smear. This practice is not only at variance with the principles of good medical care but also involves monetary benefits for the veteran and his eligibility for out-patient treatment.

"In accordance with the Chief Medical Director's letter of November 26, 1946, it is again requested that every effort be made to advise all physicians concerned in the examination and treatment of veterans as to the procedure required by the Veterans Administration in establishing a diagnosis of malaria and the necessity of a confirmatory diagnosis of malaria before administering specific therapy."

Award in Endocrinology

Ciba Pharmaceutical Products, Inc., announces an award for meritorious work in endocrinology to recognize the accomplishment of an investigator, not over 35 years of age, in the field of clinical or preclinical endocrinology. The standing award is for $1,200 but it will be increased to $1,800 if the recipient, within two years, chooses to use it to aid in working in a laboratory other than the one in which he is normally located.

Each member of the Association for the Study of Internal Secretions may make one nomination for the award, and a special committee of five members will name the winner, subject to ratification by the council of the association. The name of the winner will be announced at the annual meeting of the association.

Survey of Medical Education

A three-year survey of medical education in this country will be begun January 1, 1949, under the joint sponsorship of the Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges. A committee of seven has been appointed to conduct the survey and publish a report of its findings.

The committee states that the objectives of the study are to evaluate the present programs and determine future responsibilities of medical education, to improve medical education, to assess the degree to which medical schools are meeting the needs of the country for physicians, to promote advancement of knowledge in the field of medical science, and to inform the public concerning the nature, content and purposes of medical education.

Two similar surveys have been conducted during the past 40 years. The famous Flexner Report, published in 1910 by the Carnegie Foundation for the Advancement of Teaching, marked the beginning of a new epoch in medical education in the United States. The Weiskotten Report, written 10 years ago, also led directly to further marked advances.

CASE REPORTS FROM THE UNIVERSITY OF KANSAS MEDICAL CENTER

(Continued from Page 528)

14. Papanicolaou, G. N.: Cytology of Urine Sediment in Neoplasms of the Urinary Tract. J. Urol., 57:375-379, 1947.
15. Papanicolaou, G. N., and Traut, H. F.: Diagnosis of Uterine Cancer by the Vaginal Smear. New York: The Commonwealth Fund, 1943.
16. Seibel, R. E.: Cytology, A Diagnostic Method in Early Carcinoma of Cervix. South. M.J., 41:706-710, 1948.
17. Schiller, W.: Clinical Behavior of Early Carcinoma of the Cervix. Surg., Gynec., & Obst., 66:129-139, 1938.
18. Wiles, Jane Brady, and Hellwig, C. A.: Evaluation of Papanicolaou's Method of Cancer Diagnosis. Am. J. Clin. Path., 18:283-292, 1948.
19. Yue, H. S., Riley, G. M., Miller, N. F., and Scharenberg, K.: Application of a Silver Carbonate Stain for the Diagnosis of Uterine Cancer by the Vaginal Smear Method. Am. J. Obst. & Gynec. 56:468-476, 1948.

Merry Christmas

One could not be more sincere when we extend to you the Season's Greetings.

Gratefully and from the bottom of our hearts, we wish you a most pleasant Holiday Season.

May Peace, Joy, and Happiness always be yours, and may we always consider you our very best friends.

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ABSTRACTS

Head Injuries and Their Sequelae

Treatment of Head Injuries and their Sequelae. By William P. E. Berwald. Am. Jnl. Surg., 3, 298-306, Sept. 1948.

Craniocerebral injuries are no longer a problem reserved for the neurological or general surgeon as in this day and age every physician is called upon to treat a patient with craniocerebral injury. Skull fractures are unique among fractures of other bones of the body, in so far that the fracture is relatively important. The damage to the underlying brain demands primary consideration.

In considering head injuries, there are the obvious compound skull fractures comminuted or depressed, when debridement or elevation must be performed as soon as condition permits. For therapeutic purposes head injuries may be classified on the varying degree of severity of brain damage. This is usually indicated by the initial state of consciousness, or the length and depth of unconsciousness. By and large the degree of cerebral trauma is in direct ratio to the length and depth of unconsciousness. For descriptive purposes the unconscious patient may be subdivided into categories of cerebral concussion, contusion and laceration in order of severity. Cerebral concussion has been defined as a state of altered consciousness that occurs in association with sudden acceleration or deceleration of the brain. In most of these cases, however, there is edema of the brain tissue.

In uncomplicated cerebral concussion a diagnostic lumbar puncture will reveal a clear spinal fluid under normal or increased pressure. Cranio-cerebral injury by contracoup, which is by no means infrequent, is seen usually at the pole of the brain which is diametrically opposite to the primary site of injury. The chief lesion at this site is subarachnoid hemorrhage, and there is usually small pericapillary hemorrhage and edema of the underlying cortex.

Cerebral contusion implies a bruised brain, with moderate bleeding into the subarachnoid space and a normal or increased spinal fluid pressure.

Cerebral laceration implies a torn brain, with gross bleeding into the subarachnoid space, and almost invariably elevated spinal fluid pressure. The injury is frequent in children. The color and pressure of the spinal fluid are important clues to the extent of brain damage and a diagnostic lumbar puncture should never be omitted in a patient unconscious from a craniocerebral trauma.

The cerebral edema is presumably due to the transmitted force of the trauma causing vaso paralysis of the capillaries and venules, thus producing an increased venous pressure and an actual reversal of the normal direction of fluid exchange.

Treatment of a patient suffering from craniocerebral trauma resolves itself first, into the treatment of shock, if it is present, and secondly, into management of the brain damage itself. Blood plasma is not only the best product in combating shock, but also the best cerebral dehydration agent, being far superior to hypertonic solutions of dextrose. The cursory neurological examination includes the size, equality and reaction of the pupils to light. A dilated pupil, fixed to light, is frequently present on the side of maximum injury or bleeding. The escape of blood or spinal fluid from the orifices is frequently indicative of basilar fracture. The state of the abdominal reflexes plus the sign of Babinski will often determine the side of maximum damage. The relationship of the pulse pressure to the pulse rate is of significance. When the former exceeds the latter, it is a grave sign and decompression either medically or surgically is indicated. X-ray of skull is valuable. The spinal puncture should be done under favorable condition. If patient is delirious or unmanageable sodium luminal should be given in doses of 2-6 gr. hypo- or sodium amytal 3¾. The head should not be bent forward as this increases the pressure. The normal spinal fluid is between 100 and 200 mm. of water pressure. Enough fluid should be removed to reduce the initial reading 50 per cent. The frequence of puncture depends upon the patient's general condition, height of the spinal fluid pressure, amount of blood in the fluid and the rate at which fluid limitation and administration of dehydrating agents can reduce the brain swelling. Once a day usually is sufficient, though twice a day may be necessary, and even after the spinal fluid pressure has stabilized at a normal or subnormal value, lumbar puncture should be performed daily, or every other day as long as the fluid is bloody.

The only traumatic condition in which lumbar puncture is dangerous is massive intraventricular hemorrhage, and this condition is usually fatal in itself. The value of lumbar puncture on the other hand, not only diagnostically but therapeutically, can readily be appreciated when one considers that of all the intracranial contents, the subarachnoid, cistern and ventricular fluid is the only component which is unnecessary for normal brain function, at least under the condition in which one would find a patient unconscious from a craniocerebral trauma.

To further reduce cerebral edema, hypertonic solutions are used, preferring plasma. Hypertonic solutions are of most value when given early, up to 24 hours, Mag. sulphate oz. 1½ or Fleet's phospho soda. Temple Fay has advocated a fluid restriction to 750 c.c. per day. The fluid limitation should be observed for several weeks since it was found that the post concussion syndrome is much less likely to occur.

The triad of lumbar puncture, intravenous administration of hypertonic dehydrating solutions and fluid restriction is the crux of treatment of craniocerebral trauma. The general therapy consists of position of the patient, semi-Fowler position and feeding even by nasal tube. Sedative, codiene, Hypo, gr i; sodium luminal or amytal; no morphine.

Bed rest three weeks, for patient of skull fracture.

Subdural hematoma is a frequent and far too often unrecognized complication of head injury. Persistent symptoms of mental hebetude, changes in personality and intractable headache with frequent blurring of vision are the most common symptoms. The treatment is surgical drainage, which rarely requires more than a trephine opening #24.

Epidural or extradural hemorrhage is produced by arterial bleeding, most frequently from the posterior branch of the middle meningeal artery. Localizing neurologic objective signs develop rapidly, usually in a matter of hours, and there are periods of momentary unconsciousness followed by a lucid interval, which in turn is followed by drowsiness, severe headache, vomiting and ultimately unconsciousness. As a rule lateralizing signs develop quickly, a fixed, dilated pupil, and contralateral Babinski, clear spinal fluid under increased pressure. Prompt surgery must follow if the patient's life is to be saved. In most cases if more than six hours elapse between the onset of symptoms and surgical intervention, the mortality rate is 100 per cent, and even with prompt surgery it is better than 30 per cent.

The most common sequel of craniocerebral trauma is referred to as the post-concussion syndrome. It is characterized by a trinity of subjective symptoms which are

headache, dizziness, noticed especially on sudden changes of position, and emotional instability, negative NP. Objective finding nystagmus, comes on several months after. —*J.J.H.*

To Evaluate Public Health Service Programs

Appointment of a committee to evaluate the effects of Public Health Service programs of research and educational grants on medical education has been recommended by the National Advisory Health Council, according to a recent announcement by Surgeon General Leonard A. Scheele of the Public Health Service. The proposed study will make available information essential to resolving the problems confronting medical education and will form a part of the current studies of the entire field of higher education in which the Office of Education is participating.

The committee will be appointed in the near future and will include representatives of advisory councils to the Public Health Service, medical educational institutions, professional organizations and the public.

At present the Public Health Service administers a program of grants and fellowships to institutions and individuals for specific research projects. Grants are also made to medical schools to aid in the improvement of graduate and undergraduate instruction in cancer, cardiovascular and mental diseases. Postgraduate training of individual specialists in the fields of cancer, heart disease, and psychiatry is supported by the award of training stipends to selected individuals.

CLASSIFIED ADVERTISEMENTS

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TOWN WILL RAISE FUNDS TO PROVIDE OFFICE FACILITIES, HOME for physician. In Eastern Kansas, wide trade territory drawing from four neighboring towns without doctors. Write the Journal 16-48.

FOR SALE—Electric bone saw and drill outfit, traction apparatus, of deceased surgeon's office. Write the Journal 17-48.

ANNOUNCEMENTS

December 4-9—Annual Meeting, American Academy of Dermatology and Syphilology, Chicago, Illinois.

January 20-21—First Annual Mid-West Cancer Conference, Broadview Hotel, Wichita, Kansas. Joint sponsorship of Kansas Medical Society and Kansas Division of American Cancer Society.

February 21-26—Course in Clinical Endocrinology, Association for Study of Internal Secretions, Skirvin Hotel, Oklahoma City, Oklahoma.

March 1-4—Fifth Annual Clinical Conference, Chicago Medical Society, Palmer House, Chicago, Illinois.

March 28-April 1—30th Annual Session, American College of Physicians, New York, New York.

MAY 9-12—90th ANNUAL SESSION, KANSAS MEDICAL SOCIETY, TOPEKA, KANSAS.

June 6-10—Annual Meeting American Medical Association, Atlantic City, New Jersey.

Two of 39 certificates of achievement awarded by the Surgeon General of the U. S. Navy in recognition of "meritorious and outstanding services" rendered during World War II were won by the American Optical Company.

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BOOK REVIEWS

Human Biochemistry. Second Edition. By Israel S. Kleiner, Ph.D. Published by the C. V. Mosby Company, St. Louis, 1948. 649 pages, 75 illustrations. Price $7.00.

This is the second edition of Human Biochemistry and the author has thoroughly revised and added new material to bring it up to date.

This edition presents biochemistry in a manner that it can be applied to both physiological and pathological processes. The clinical aspects of biochemistry are presented in a concise and clear fashion that should be clearly understood by both the undergraduate and graduate students of medicine.

The author discusses the biochemical reactions in the metabolism of proteins, carbohydrates, lipids, nitrogen, and minerals. Chapters are also included on urine, acid-base balance, energy metabolism, blood, hormones, physiological oxidations, enzymes, and vitamins. The subjects are presented in a wonderful manner and there is reference to clinical application when applicable.

This book is highly recommended to all medical students and to physicians who are interested in the biochemistry and physiology of disease.—*L.H.L.*

* * *

A.M.A. Interns' Manual. Published by W. B. Saunders Company, Philadelphia. 209 pages. Price $2.25.

This handy pocket-size manual is the answer to many daily problems of both the intern and the housestaff.

The day-to-day needs of any active service are adequately covered. This concise volume lends itself to ready use and referral.

I would recommend this book as good reading for the intern.—*C.S.D.*

* * *

Psychiatry in General Practice. By Melvin W. Thorner, M.D., D.Sc. Published by W. B. Saunders Company, Philadelphia. 659 pages. Price $8.00.

This book has been written for the benefit of the non-psychiatric physician, to acquaint him with the aspects of psychiatric theory and practice which are of constant concern in professional work. Use of technical psychiatric terminology is avoided, making it more understandable to the general practitioner.

The book is divided into four sections. The first outlines the plan, organization and purposes of the book. The second section, comprising three-fourths of the volume, describes, using illustrative case histories, the various kinds and classifications of psychiatric patients, from the organic and functionally psychotic, through the neuroses, to the occasional aberrations of "the rest of us." The third section deals with the method of psychiatric examination and the therapeutic aims and methods in psychotherapy. The fourth section presents a classification of mental disorders and describes commitment procedures. The book should be of interest as well as value to the student and all non-psychiatric physicians.—*M.S.*

New Books at Stormont Library

The Stormont Medical Library, Topeka, announces that 40 books were recently added to its shelves on a semi-permanent loan basis by the Maternal and Child Health Division of the Kansas State Board of Health. The books, with names of authors, are as follows:

The 1946 Yearbook of Pediatrics, Abt; The 1947 Yearbook of Pediatrics, Abt; Babies are Human Beings, Aldrich and Aldrich; Developmental Anatomy, Arey; Psychology of Infancy and Early Childhood, Arlitt; Researches on Pre-Natal Life, Barcroft; Mongolism and Cretinism, Benda; Physiological Basis of Medical Practice, Best and Taylor; The Master Hand, Blau; Dentistry for Children, Brauer; Pediatric X-ray Diagnosis, Caffey; Dentistry, Carr; Child and Adolescent Life in Health and Disease, Craig; The Health of the School Child, Cromwell; The Complete Pediatrician, Davison; Congenital Syphilis, Dennie; Strabismus, Epstein; Medical Biochemistry, Everett; Diseases of the Nervous System in Infancy, Childhood and Adolescence, Ford; Infant and the Child in the Culture of Today, Gesell; The 1946 Yearbook of Obstetrics and Gynecology, Greenhill; Surgical Treatment for Abnormalities of the Heart and Great Vessels, Gross; Clinical Practice in Infectious Diseases; Harries and Mittman; The Biology of Schizophrenia, Hoskins; Infant Nutrition, Jeans and Marriott.

Personality and Sexuality of the Physically Handicapped Woman, Landis and Bolles; Sexual Behavior in the Human Male, Kinsey; Synopsis of Obstetrics, Litzenberg; Adopting a Child, Lockridge; Nutrition and Chemical Growth in Childhood, Macy; Embryonic Sex Hormones and Sexual Differentiation, Moore; Congenital Malformations, Murphy; Engrammes of Psychiatry, Neilsen; Rh—Its Relation to Congenital Hemolytic Disease and to Intragroup Transfusion Reactions, Potter; The Physiology of the Newborn Infant, Smith; Medical Services by Government, Local, State and Federal, Stern; The New-Born Infant, Stone; Congenital Malformations of the Heart, Taussig; Microbial Antagonisms and Antibiotic Substances, Waksman; Psychiatric Interviews with Children, Witmer.

Physicians' Expenses Rise

The average independent physician in 1947 spent $2,000 more to practice than he did in 1943, a jump of 40 per cent, reports Medical Economics, national business magazine for physicians, after a recent survey. During this same interval the physician's income increased 23 per cent.

In a breakdown according to geographic areas, the magazine revealed that physicians in the far west had the highest average professional expenses, but in spite of that fact their net income topped that of doctors in other regions. Operating costs and average net incomes were lowest in New England and the middle eastern states.

The survey also disclosed that expenses of the average low-income doctor were relatively much higher than those of the high-income physician, ranging from 53.9 per cent of gross for the former to 36.8 of gross for the latter.

Groups Plan Improved Care of Patients

The three most important groups in the field of health, the American Medical Association, the American Hospital Association, and the American Nurses' Association, together with other leading professional organizations, have agreed to improve their teamwork in caring for patients, according to a recent editorial in the American Journal of Nursing. The American Hospital Association took the initiative in organizing the Joint Commission for the Improvement of Care of the Patient.

The commission's purpose is based on the assumption that improved care of the patient will result from better understanding of each other by the medical staff, nursing staff and hospital administrator. Five representatives from each group will form the nucleus of the commission.

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